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ABSTRACT

Part of a health occupations program, these instructional units consist of materials for use by those who are studying to become practical nurses. The first unit deals with the various aspects of pediatric nursing, including the growth and development levels of children, diseases and conditions specific to children, and the application of health care principles in pediatric nursing. Addressed in the individual modules are the following age groups of children: newborn, infant, school-age child, and adolescent. The next unit, which is devoted to mental health, covers personality and behavior, mental health and mental illness, current trends in treating mental illness, suicide and death, and drug abuse. This unit stresses the development of communication skills and making observations through the use of group discussion, role playing, and audiovisual aids. The units are comprised of a series of learning modules, each of which contains a rationale, performance objectives, learning activities and answers, terminology, and posttests. (MN)

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ED221748

HEALTH OCCUPATIONS CURRICULUM

SKILLS AND THEORY FOR PRACTICAL NURSE

UNITS 14 AND 15

CE 033 941

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Unit 14 provides the practical nurse with a foundation in pediatric nursing. The growth and developmental levels of children are covered as well as diseases and conditions specific to children. Principles from previous health care units are reviewed and correlated with theory in this unit.

NURSING CARE OF CHILDREN

Module A - Introduction to Pediatric Nursing
Module B - The Newborn
Module C - The Infant
Module D - The Toddler
Module E - The Preschooler
Module F - The Schoolage Child
Module G - The Adolescent
Terminology
Post Tests: 1. Module A
2. Module B
3. Module C
4. Module D
5. Module E
6. Module F
7. Module G
Answer Sheets

When you have completed the learning activities and are ready for a test or wish to challenge a test, please see your instructor.

Suggested References

The following texts and audiovisuals will supplement the learning materials for this unit. If you are unable to locate these materials, your instructor will assist you.

1. Brigley, Catherine M. Pediatrics for the Practical Nurse. Delmar Publishers, Albany, New York, 1973.

Suggested References (continued)

2. Brunner, Lillian S. and Davis Smith Suddarth. The Lippincott Manual of Nursing Practice. J. B. Lippincott Co., Philadelphia, PA, 1979.

3. Dreikurs, Rudolf and Vicki Soltz. Children: The Challenge. Hawthorne Books, Inc., New York, NY, 1964.

4. Erikson, Erik. Childhood and Society. 2nd Edition, W.W. Norton and Co., Inc. New York, NY, 1964.

5. Marlow, Dorothy R. Textbook of Pediatric Nursing. 5th Edition, W.B. Saunders Co., Philadelphia, PA, 1977.

6. Massoglia, Elenor Tripato. Early Childhood Education in the Home. Delmar Publishers, Albany, New York, 1977.

7. Nelson, Waldo E., Victor C. Vaughan and R, James McKay. Textbook of Pediatrics. 10th Edition, W.B. Saunders Co., Philadelphia, PA, 1975.

Audiovisuals

1. Growth and Development: A Chronicle of Four Children, Series 1 through 10 by J.B. Lippincott Company, New York, 1976 (videocassette).

2. Rheumatic Disease in Children and Young Adults, Trainex Corporation, 1974.

   Pediatric Surgery for Congenital Defects

   The Young Spastic Child

   Pediatric Abdominal Surgery

   Battered Child Syndrome, 1972

unit 14

NURSING CARE OF CHILDREN

Module A - Introduction to Pediatric Nursing

RATIONALE

An understanding of basic concepts and principles related to child care are essential to give safe and effective nursing care.

PERFORMANCE OBJECTIVES

To the instructor's satisfaction, you will:

1. Identify current trends in child care.
2. Identify normal growth and development patterns.
3. Identify selected health organizations concerned with the welfare of children.
4. Describe the role of play in children's lives.
5. Describe the effects of hospitalization on children and their parents.
6. Identify methods by which medications are safely administered to children.
7. Describe the effects of fluid and electrolyte imbalance in children.
8. Calculate correct drug dosages.

CLINICAL OBJECTIVES

In the clinical area and to the instructor's satisfaction, you will:

1. Use effective forms of communication with children.
2. Perform nursing skills necessary in the care of given children.
3. Provide meaningful play activities for the hospitalized child.
4. Properly regulate and maintain intravenous infusions in children.
5. Calculate and administer IM and oral medications to children.
6. Exercise appropriate nursing care for the child with febrile illness.

LEARNING ACTIVITIES

Directions: The material needed to complete this module is included in this module and in your book, Textbook of Pediatric Nursing. The text readings will be found in Chapters 1, 2, and 3; Chapter 4, pages 61-103; Chapter 5, and Chapter 14, pages 405-409.

LEARNING ACTIVITIES - continued

Exercises are included in this module to help you learn and prepare for your Post Test. The Terminology section in the back of this module will help you in your learning and understanding of the material.

ACTIVITY #1. Current Trends in Child Care

Directions: Read Textbook of Pediatric Nursing by Marlow, Chapter 1, pages 5-20. Then read the information below.

The following is a brief outline of some ways child care has changed in recent years in this country. Additional reading may be found on pages 13-20 in your text.

Factors that Improved Child Care

* Improved prenatal care for mothers.
* Federal programs to improve health care for low-income families.
* Increased screening of children in school and elsewhere for vision, hearing, and other problems.
* Advent of Day-Care Centers, Head Start, and similar government programs for culturally deprived children.
* Regionalization of costly health care services to hold down costs.
* Health Maintenance Organizations (H.M.O.) and other prepaid health plans.
* Increased publicity of child care information.
* Greater emphasis on prevention rather than treatment.

Factors which Influence Children's Growth

* Children seem to grow up faster in a fast-paced society.
* Have fewer roots due to frequent family moves.
* Exist in small nuclear families without support system.
* Often experience upheaval in families.
* Live in single-parent families.
* Poverty.

LEARNING ACTIVITIES - continued

ACTIVITY #2. Organizations Concerned with the Welfare of Children

Directions: Read your text by Marlow, Chapter 1, pp. 5-14. After you have read Chapter 1, continue reading below.

The following agencies have a role in improving conditions for children both in the United States and in other parts of the world.

International

W.H.O.: World Health Organization. Founded 1948 and is part of the United Nations.

Purpose: To assist all peoples in attaining highest possible level of health, control of communicable diseases, and venereal diseases.

UNICEF: United Nations International Children's Emergency Fund. Founded 1946 and is now part of W.H.O.

Purpose: To meet emergency needs of children in any country requesting aid in time of war or other disasters in countries.

I.S.S.: International Social Service.

Purpose: Functions in some intercountry adoptions and primarily assists in bringing children to the United States for medical care not available in their own country. Example: A few years ago, Siamese twin girls were brought here from Argentina to be separated.

National

Children's Bureau: Founded 1912 by Lillian Wald and Florence Kelley.

Purpose: To "investigate and report on all matters pertaining to the welfare of children..." (see page 7 of text).

Indian Health Services: Founded to serve native Americans.

Purpose: To provide accessible health services to native Americans.

State

Child Protective Services: Operates through court system.

Purpose: Specifically aimed at investigating cases of child abuse and neglect. Works through courts to plan for best interest of child.

LEARNING ACTIVITIES - continued

ACTIVITY #3. Communication

Directions: Read the following information.

Communication is very important in dealing with young children. The following information will give you ideas about how to secure cooperative responses from young children, whether they are well or ill.

1. Make requests in the form of a suggestion only when you are certain the child hears you. Attention is necessary to secure cooperation.

2. Your manner should indicate that you expect the child to comply with your request. Children have a way of living up to your expectations. They are quick to sense uncertainty in the older person. Show pleasantly and firmly that you mean what you say.

3. Ask yourself whether the standards of behavior you are setting are within the child's ability to achieve.

4. If the child is given a reason why a certain task must be done, the child will be more apt to comply with a request. "Put your mittens on today. It is cold outside". Connect the task with the child's interest and pleasure.

5. There should always be a better reason than, "Because I say so", for asking a child to do something. Requests should be impersonal whenever possible with as few commands given as necessary.

6. Occasionally, requests are made in the form of permission. "You may put your blocks away in this cupboard". Or, as a more casual suggestion: "This cupboard is a good place for the blocks".

7. Children have a natural urge to be active. They may, therefore, be more successfully motivated through attention to desired activity than through the inhibition of an undesired activity. It is better to say: "We mark with crayons on this paper". Rather than, "Do not mark on the wall with crayons". This focuses the attention on the positive rather than the negative. Making requests as "do's not don'ts", often gains cooperation that otherwise might be difficult to secure.

8. Children enjoy doing as the group does. Seeing other children eat a good lunch and having a clean plate is an incentive for them to do likewise.

9. Children work in a leisurely fashion. They should be given plenty of time to respond to your requests, which should be made in an unhurried fashion. At the same time, they are entitled to some limit. They should be warned a few minutes ahead of time when you wish to motivate them from one activity to another. For example, "It is almost time for lunch. As soon as you finish your picture, it will be time for you to wash your hands and face."

10. A good time to make a request is just when a child has finished with an activity. Children are most easily motivated when they are not concentrating on something.

LEARNING ACTIVITIES - continued

11. Give children a choice whenever possible. For example, "At which table are you going to sit when you use your clay?" There are times when no choice is in order. At these times, avoid saying, "Would you like to . . ."

12. Requests should be clear, simple, and specific. Usually one request should be made at a time.

13. Once you have asked that a thing be done, follow it up. If orders may be neglected , all discipline is undetermined.

14. Be consistent. Let your demands rest not upon unstable emotions or feelings at a particular time, but on a basis of order and right.

15. Treat a child as an equal and they will often regard your reasonableness with unquestioning compliance because they have learned to trust you. Because children are individuals, but unable to look out for their own rights, it is especially necessary for you to respect these rights.

16. Deserved praise is one of the most effective forms of motivation. Children should derive satisfaction from complying with your request.

Verbal Guidance

Using words in guiding children can be helpful or confusing according to the choice of phrases. Many children develop a protective "deafness" against adult directions because they hear too many of them.

In helping young children learn through verbal directions, first get the child's attention. Then use clear, short meaningful phrases that are expectant and encouraging. Directions are positive rather than negative in form, and are always specific. Give just what verbal help the child needs. The examples on the following pages should help you understand verbal guidance.

Usually Say This	Instead of Saying This
"You may hold your glass." (specific, positive, expectant)	"Oh, aren't you going to drink your water?" (negative, raises doubt)
"You need to turn off the faucet." (specific, positive)	"Don't turn on so much water." (negative)
"Yes, you may go walking after you take your nap." (encouraging)	"No, you can't go walking until after you take your nap." (discouraging)
"We stay inside the fence." (positive, specific, tells what to do)	"Don't go out in the street." (negative, fails to tell what to do.)
"Stack the long red blocks on this shelf. There's a red block." (specific, interesting)	"Get your blocks out of the way now." (not interesting)
You are ready to lie still and rest." (specific, expectant)	"Aren't you ever going to be quiet?" (does not tell what to do)

LEARNING ACTIVITIES - continued

ACTIVITY #4. Some General Physical Characteristics of Children

Directions: Read your text by Marlow, Chapter 2, pages 23-46. Then continue reading below.

Contrary to 18th and 19th Century paintings, children are not small versions of adults. They don't resemble adults physically nor do they have similar psychological/emotional make-ups.

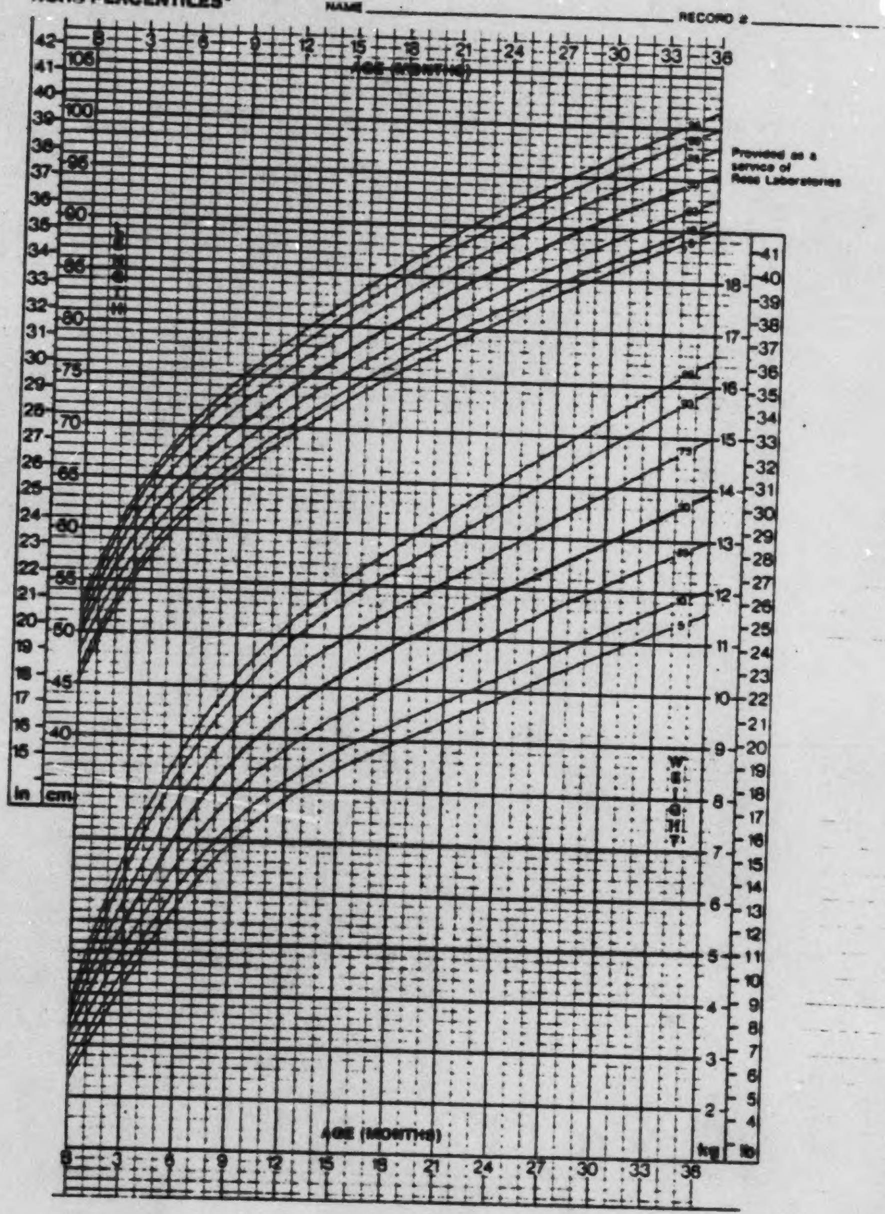
Children start out in life very misproportioned by adult standards. They have large heads for their body size, long trunks and short, stubby legs. This supports our concept of cephalocaudal growth and development. The term cephalocaudal means that growth and development advances in the upper part of the body and then proceeds downward. The other term used to describe the growth and development of children is that it proceeds from visceral to peripheral. This means that areas at the center of the body develop before peripheral areas of the body. An example would be a baby's use of arms and hands. The baby first exhibits random movement mostly from the shoulder in an attempt to grasp objects. As the child develops, the ability to control the arms improves as does the ability to use the tiny fingers to pick up small objects. The growth and development of the rest of the child's body follows the same pattern. The older the child gets, the more closely he/she begins to resemble adults.

On the following pages, you will find physical growth charts for boys and girls from birth to 18 years, when most physical growth has stopped. These are used in doctors' offices and hospitals to see how any one child compares to the norm. They are not used to make a final decision about the "normalcy" of a child, but as one of many aids in determining the developmental progress of a child and planning appropriate care. It would be helpful to you to obtain one of these charts at the hospital to plot the height, weight, etc. of the children you care for.

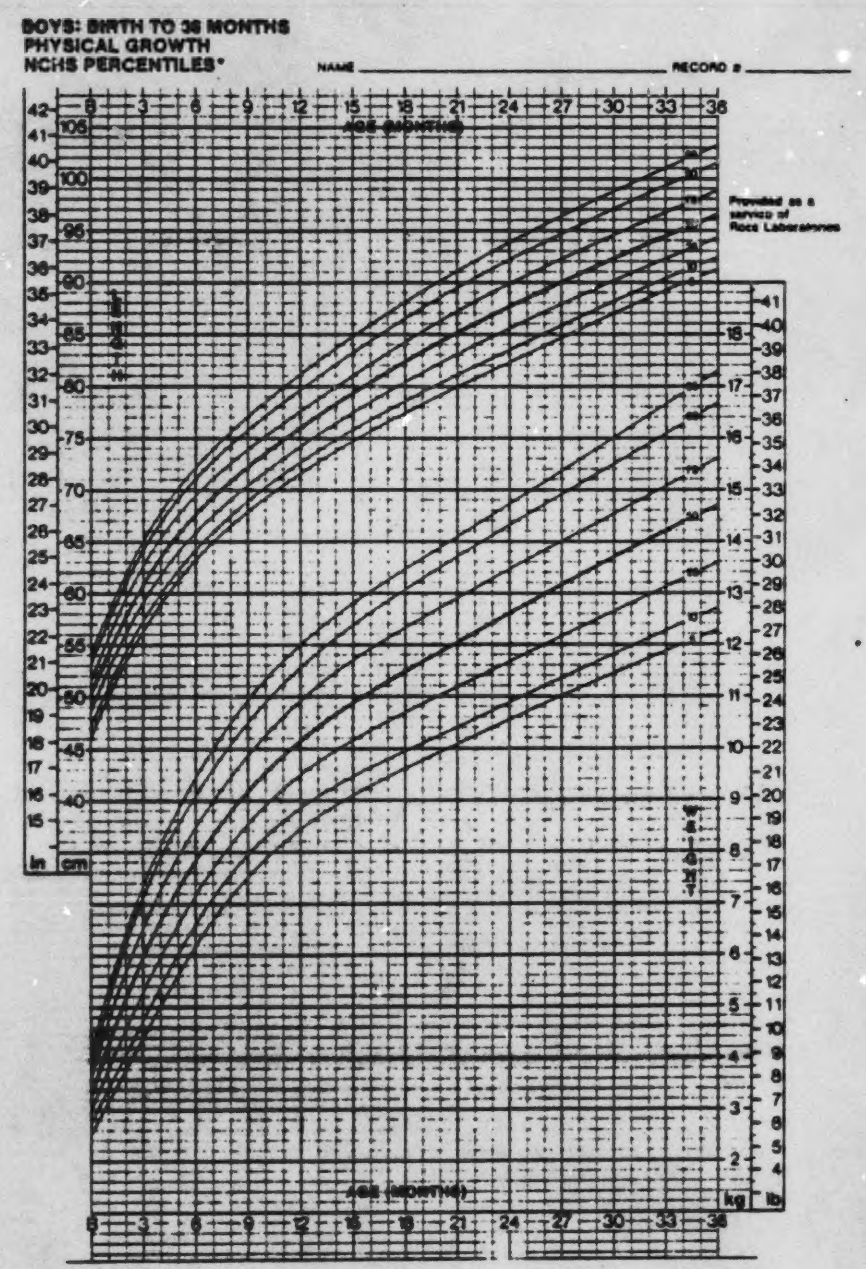
Also, note Vital Signs on pages 15-16 and how the infants' vital signs vary greatly from the adult's but approach adult normal as the child grows.

LEARNING ACTIVITIES - continued

GIRLS: BIRTH TO 36 MONTHS
PHYSICAL GROWTH
NCHS PERCENTILES*



LEARNING ACTIVITIES - continued

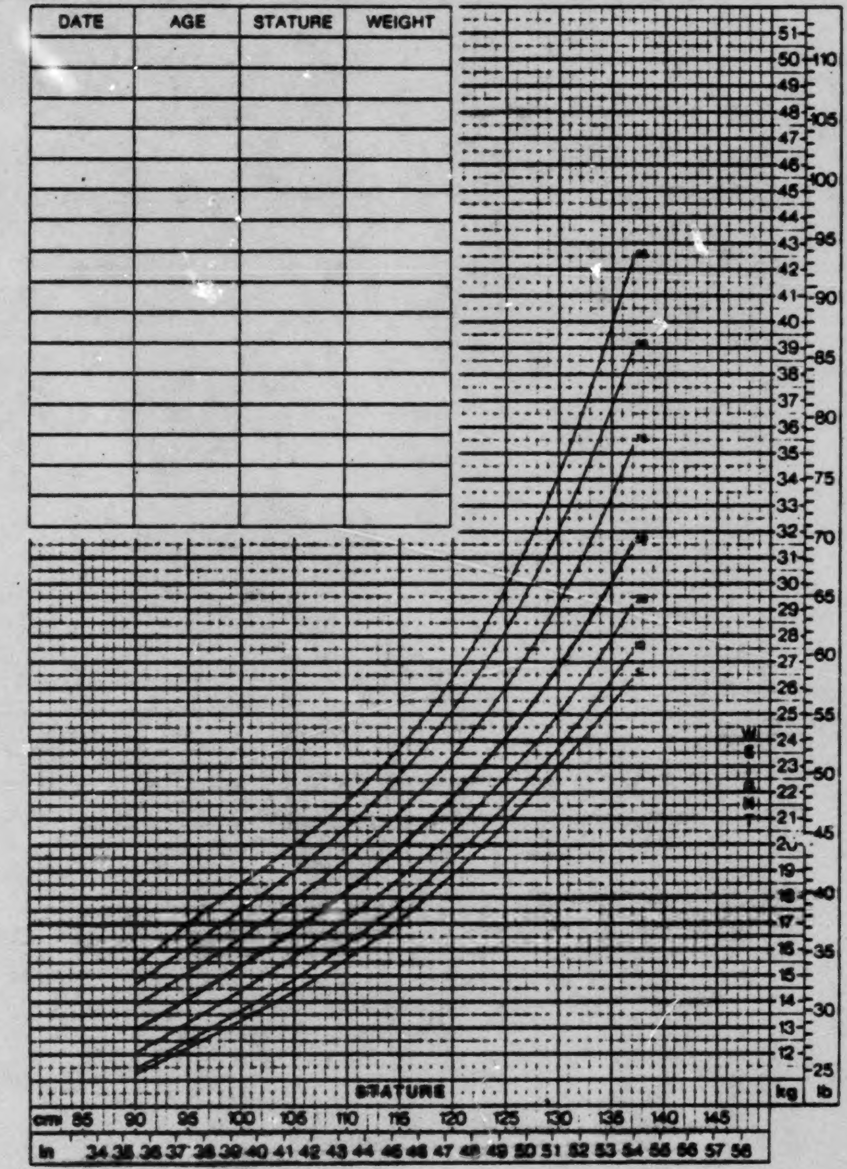


LEARNING ACTIVITIES - continued

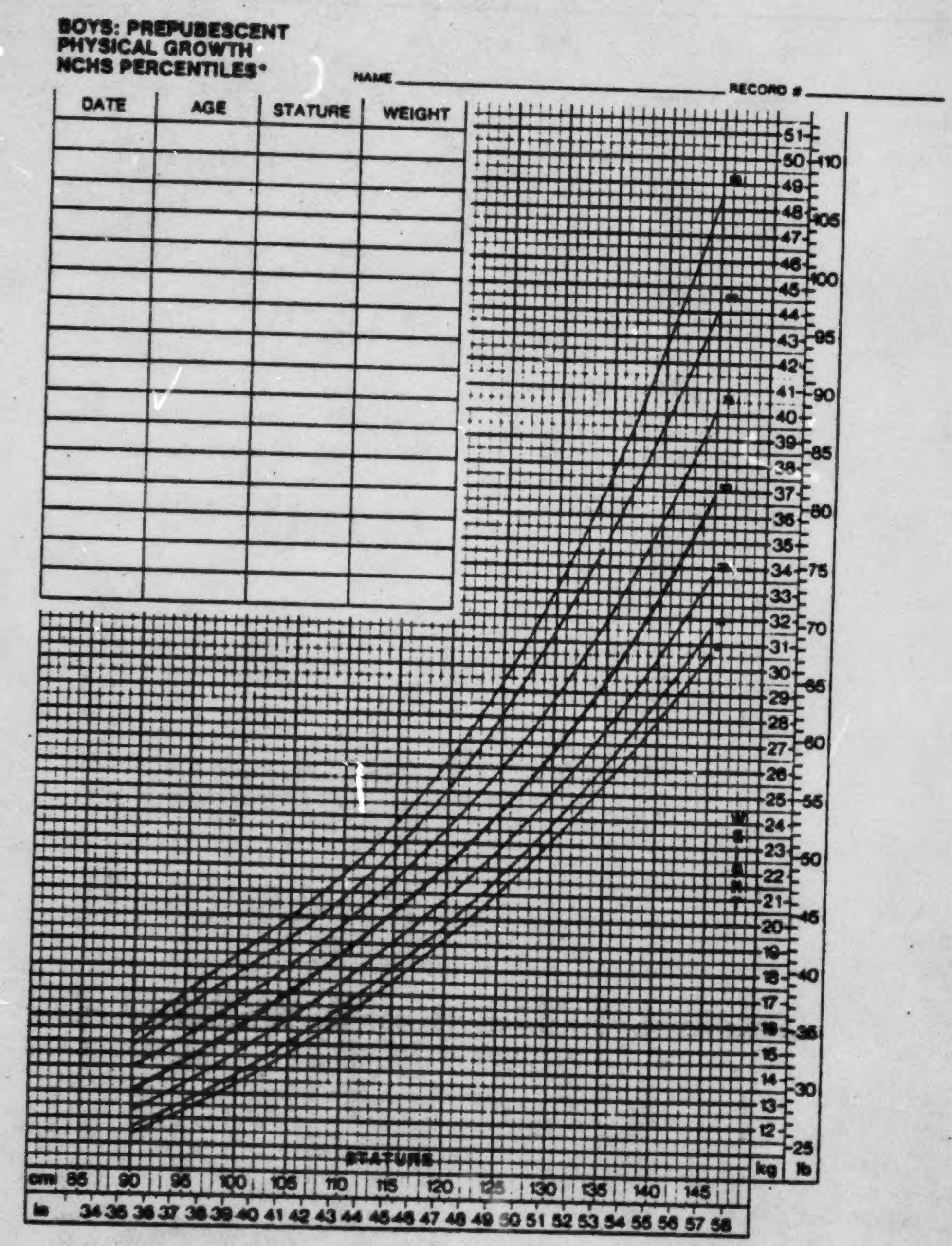
GIRLS: PREPUBESCENT
PHYSICAL GROWTH
NCHS PERCENTILES*

NAME ____________________ RECORD # ____________

DATE	AGE	STATURE	WEIGHT



LEARNING ACTIVITIES - continued



BOYS: PREPUBESCENT PHYSICAL GROWTH NCHS PERCENTILES*

NAME ______________________ RECORD # ____________

DATE	AGE	STATURE	WEIGHT

LEARNING ACTIVITIES – continued

NORMAL HEART RATES AT REST

Age	Lower Limits		Average		Upper Limits	
Newborn	70		120		170	
1-11 months	80		120		160	
2 years	80		110		130	
4 years	80		100		120	
6 years	75		100		115	
8 years	70		90		110	
10 years	70		90		110	
	Girls	Boys	Girls	Boys	Girls	Boys
12 years	70	65	90	85	110	105
14 years	65	60	85	80	105	100
16 years	60	55	80	75	100	95
18 years	55	50	75	70	95	90

AVERAGE BLOOD PRESSURES OF CHILDREN

Age*	Systolic	Diastolic
4	85	60
5	87	60
6	90	60
7	92	62
8	95	62
9	98	64
10	100	65
11	105	65
12	108	67
13	110	67
14	112	70
15	115	72
16	118	75

*In infancy and early childhood the blood pressure readings are approximately the same as those of the 4-year-old child.

LEARNING ACTIVITIES - continued

NORMAL RESPIRATORY RATES

Age	Respiratory Rate (/min)
Newborn	40-70
One Year	35-40
Five Years	20-25
Adults	16-20

ACTIVITY #5. Psychosocial Development of the Child

Directions: Read the following.

Child Growth and Development

Growth:	Refers to an increase in physical size of the whole body or any of its parts and can be measured in inches and pounds.
Development:	A general term that denotes the change and progressive integration of physical, psychological, and social characteristics from one time to another.
Maturation:	Refers to the emerging of biological potentials for growth. Regardless of the degree of stimulation present in the environment, these potentials set the upper limit of possible effects the environment may have on the life of the individual. However, heredity probably has much to do with the rate and amount of growth, the degree and the level to which various processes may be integrated, and the degree to which the individual may be modified by his/her world.
Learning:	A modification of behavior that has come about by virtue of experience, practice, observation or training.

Principles of Growth and Development

1. Growth and development is both quantitative and qualitative. The child grows by increasing in size as well as by improving in ability.

2. Growth and development is a continuous process from conception to maturity. The infant moves along through childhood toward adulthood. Whatever happens to the child at one stage will be expected to show an effect at a later stage.

3. Growth does not proceed at the same rate all the time. The most rapid overall growth takes place in early childhood. Generally, the child learns one new skill at a time.

4. Growth follows an orderly pattern. The stages of growth and learning seem to parallel chronological ages, thus developmental scales have been set up.

LEARNING ACTIVITIES - continued

5. The pattern of growth and development is not uniform from child to child. The sequence of development is the same, but the rate of development varies from child to child with individual differences clearly demonstrated.

6. Development is intimately related to maturation of the nervous system.

7. Generalized mass activity is replaced by specific individual responses.

8. Growth and development is in the cephalo-caudal, visceral-peripheral direction.

9. Some primitive movement must be lost before more definite things can be learned.

10. Modification of the rate and pattern of growth and development can be achieved by altering conditions within and without the body. Heredity and environmental factors can both influence the growth and developmental process.

11. Growth and development is a complex process and all of its many aspects are interrelated. In order to have a well-developed, well-balanced individual, the physical, mental, social, and emotional factors must be in harmony.

12. The basic motive for all creatures is the quest for gratification (pleasure), and the avoidance of unpleasantness (pain).

13. Every human being has an inborn resistance to the imposition of outside force.

14. The growing human learns self-control gradually.

15. The process of living is ever changing; and to resist change, even to lament it, is to invite trouble.

16. Change is gradual, not precipitious.

17. Integration, wholeness of personality, takes place through specialization. Thus, the use of hands improves as the thumb and fingers can act independently; but, it is always the child who picks up a toy—not the thumb and fingers.

18. Each child grows uniquely. The child is an individual from the moment of conception, and the child's development continues on an individual basis. Thus, the developmental scales should be used as guides but not rigid yardsticks.

Stages Toward a Healthy Personality

Personality develops in stages and is linked with age. It is important for you to take individual differences into consideration and to remember that one stage of personality ceases to be of value after the individual reaches a certain age. Thus, each stage is a foundation for the next, and continues during growth. The first three (3) stages of personality development are the most important. It should be noted that these stages can begin at any age; however, the most effective ages are the ones stated on the chart on the following page.

LEARNING ACTIVITIES - continued

Trust vs. Mistrust	Most appropriate timing: First year of life. Learning to trust the environment--feeling the world is okay. Having needs met. Picking up parental emotions and attitudes. Language is unnecessary. Being loved, accepted, and understood.
Autonomy vs. Shame & Doubt	Most appropriate timing: 12-15 months old to 3 years. Learning to move about under one's own power. Experimenting in all sorts of ways. Learning to trust one's self. Providing the child with opportunities for growth.
Initiative vs. Guilt	Most appropriate timing: 4 and 5 years old. Having an idea and carrying it out. Limiting, imagining, questioning, talking, and trying. Learning that leads to future possibilities. Developing of conscience.
Industry vs. Inferiority	Most appropriate timing: 6-12 years old. Carrying real tasks to completion. Collecting. Rites and rituals. Devoting loyalty to gang. Learning self-respect gives self-confidence.
Identity vs. Identity Diffusion	Most appropriate timing: Onset of adolescence. Looking inward on self and seeing what is there. Inconsistency between adults, children, society, etc. Seeking acceptance by peer group. Having a place and feeling of belonging.
Intimacy vs. Isolation	Most appropriate timing: Adolescence. Gaining strength in self and others. Sharing people, places, things with others. Learning, improving, and accepting. Progressing in feeling (know how to love).
Parental Sense Generativity vs. Stagnation	Most appropriate timing: Adulthood. Being able to accept our own life cycle and significant people within our own segment of time. Newly developing attitude toward own parents.
Integrity vs. Disgust & Despair	Most appropriate timing: Adulthood. Being able to accept our own life cycle and significant people within our own segment of time. Newly developing attitude toward own parents.

Source: Childhood and Society, Erik Erikson, 2nd Edition, W.W. Norton and Co., Inc., New York, NY, 1964.

LEARNING ACTIVITIES - continued

Denver Developmental Screening Test (D.D.S.T.)

A rating scale has been developed which shows the progressive development of the child. It will be helpful to you to know what this is and how it is used.

The Developmental Rating Scale for preschool, hospitalized children is based on the fact that development proceeds in a consistent, sequential pattern. Although there may be some variation as to the specific age at which a child accomplishes each task, one level of maturity cannot be attained until the previous level has been established. Consequently, it is assumed that if a child is able to perform the fourth level of behavior, the previous levels have been accomplished. Development may be compared with average or standard behavior, but each child should be his own norm. The final test of progress should rest on the individual's own aptitude to accomplish the continuous steps of development.

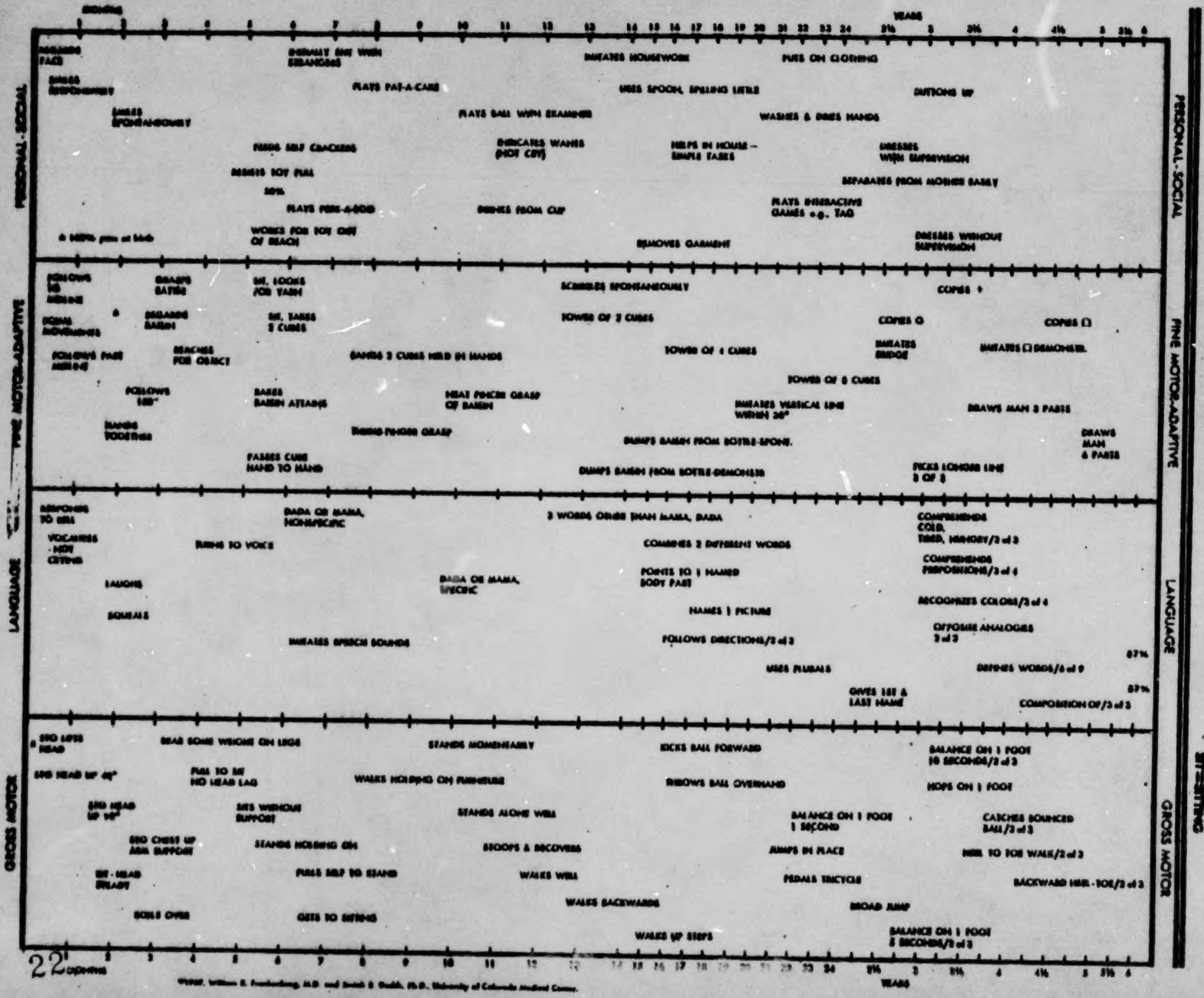
This scale can be used by nursing personnel as a guide in evaluating developmental behavior of any preschool child, two, three, or four years of age, who is hospitalized. Four areas of developmental abilities are included: manipulation, language, feeding, and toileting. Each area contains five categories of behavior to be tested. Within each category are five levels of ability arranged in a sequence of increasing difficulty.

If the hospital you are training in uses this test or if you wish to learn more about the Denver Developmental Screening Test, ask your instructor for a reference which covers this information more thoroughly.

LEARNING ACTIVITIES - continued

DENVER DEVELOPMENTAL SCREENING TEST

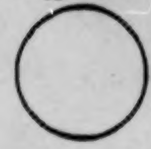
14.A.16



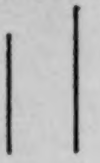
LEARNING ACTIVITIES - continued

DIRECTIONS

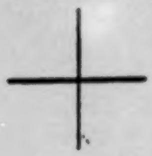
1. Try to get child to smile by smiling, talking or waving to him. Do not touch him.
2. When child is playing with toy, pull it away from him. Pass if he resists.
3. Child does not have to be able to tie shoes or button in the back.
4. Move yarn slowly in an arc from one side to the other, about 6" above child's face. Pass if eyes follow 90° to midline. (Past midline; 180°)
5. Pass if child grasps rattle when it is touched to the backs or tips of fingers.
6. Pass if child continues to look where yarn disappeared or tries to see where it went. Yarn should be dropped quickly from sight from tester's hand without arm movement.
7. Pass if child picks up raisin with any part of thumb and a finger.
8. Pass if child picks up raisin with the ends of thumb and index finger using an over hand approach.



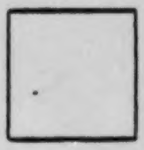
9. Pass any enclosed form. Fail continuous round motions.



10. Which line is longer? (Not bigger.) Turn paper upside down and repeat. (3/3 or 5/6)



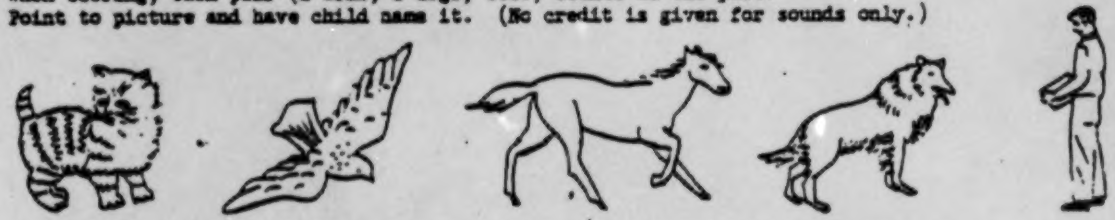
11. Pass any crossing lines.

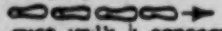
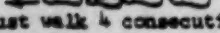


12. Have child copy first. If failed, demonstrate

When giving items 9, 11 and 12, do not name the forms. Do not demonstrate 9 and 11.

13. When scoring, each pair (2 arms, 2 legs, etc.) counts as one part.
14. Point to picture and have child name it. (No credit is given for sounds only.)



15. Tell child to: Give block to Mommie; put block on table; put block on floor. Pass 2 of 3. (Do not help child by pointing, moving head or eyes.)
16. Ask child: What do you do when you are cold? ..hungry? ..tired? Pass 2 of 3.
17. Tell child to: Put block on table; under table; in front of chair, behind chair. Pass 3 of 4. (Do not help child by pointing, moving head or eyes.)
18. Ask child: If fire is hot, ice is ?; Mother is a woman, Dad is a ?; a horse is big, a mouse is ?. Pass 2 of 3.
19. Ask child: What is a ball? ..lake? ..desk? ..house? ..banana? ..curtain? ..ceiling? ..hedge? ..pavement? Pass if defined in terms of use, shape, what it is made of or general category (such as banana is fruit, not just yellow). Pass 6 of 9.
20. Ask child: What is a spoon made of? ..a shoe made of? ..a door made of? (No other objects may be substituted.) Pass 3 of 3.
21. When placed on stomach, child lifts chest off table with support of forearms and/or hands.
22. When child is on back, grasp his hands and pull him to sitting. Pass if head does not hang back.
23. Child may use wall or rail only, not person. May not crawl.
24. Child must throw ball overhand 3 feet to within arm's reach of tester.
25. Child must perform standing broad jump over width of test sheet. (8-1/2 inches)
26. Tell child to walk forward,  heel within 1 inch of toe. Tester may demonstrate. Child must walk 4 consecutive steps, 2 out of 3 trials.
27. Bounce ball to child who should stand 3 feet away from tester. Child must catch ball with hands, not arms, 2 out of 3 trials.
28. Tell child to walk backward,  toe within 1 inch of heel. Tester may demonstrate. Child must walk 4 consecutive steps, 2 out of 3 trials.

DATE AND BEHAVIORAL OBSERVATIONS (how child feels at time of test, relation to tester, attention span, verbal behavior, self-confidence, etc.):

LEARNING ACTIVITIES - continued

Review Exercise

Directions: Respond to the following exercise on communication and growth and development. This exercise relates to Activities #1-4 and the associated readings. Check your answers by referring to this previous information.

Part A.

1. List two (2) characteristics which may add stresses to a child's life.

   a. ____________________

   b. ____________________

2. List five (5) changes that have occurred in recent years that have improved health care for children.

   a. ____________________

   b. ____________________

   c. ____________________

   d. ____________________

   e. ____________________

3. Describe what is meant by "Cephalo-Caudal" development.

   ____

   ____

4. Which national agency concerned with child welfare provides assistance to the states for programs relating to children and parents?

   ____

5. What are the current main objectives of W.H.O. (World Health Organization) as described in your text?

   ____

   ____

   ____

6. Of all the agencies you have read about, which would have a role in a case of child abuse?

   ____

LEARNING ACTIVITIES - continued

7. Set up a situation or situations in which you will use three good communications techniques with children.

   a. State those techniques.

   b. State the principle behind each good technique used.

   c. Contrast each good technique with a poor technique.

8. Describe what you think Erik Erikson means when he titles the infant's psychological task as learning trust vs. mistrust.

LEARNING ACTIVITIES - continued

Part B. In this next section you are to identify which are true and which are false statements regarding normal growth and development.

1. ______ Physical growth and psychological development are interrelated and cannot be viewed separately.

2. ______ Each child grows and develops at his/her own rate.

3. ______ Growth for the individual child proceeds at a uniform rate.

4. ______ The changes that occur during a child's growth and development happen suddenly as the child reaches new levels.

5. ______ Erikson says that specific psychological tasks are best accomplished during specific intervals in a child's life.

ACTIVITY #6. Play: The Business of Childhood

Directions: Read Textbook in Pediatrics by Marlow, pages 47-48, 344-345, 357-358. Then read the following information.

Play

As a practical nurse, you will need to know the therapeutics of play which will help you to contribute to the well-being of your pediatric patient. Play should be self-directed. All children learn differently from play as it is a response to each child's individual needs and is a part of the child's everyday life even when hospitalized.

1. Play equipment should include items which involve the use of the large muscles and stimulate creative effort.

2. Materials and playthings should be developmental rather than of a merely pleasing appeal. The child should have some difficulties to encounter, but if equipment is not suited to age, discouragement and boredom follow. The habit of success in dealing with materials is important if the child is to try out new ideas.

3. A variety should be provided so new sensations will stimulate new activity. Children constantly discover new uses for the same playthings, provided these playthings have been selected with the growth of the child in view.

4. Variety of experience is desirable. A young child should not be overstimulated or excited by manifold activities; but the modern home does not provide material for learning such as is found in factories, farms, zoos, stores, etc.

5. Play must have a purpose. The care of pets furnishes lessons in sympathy. A garden makes evident the need of system, order and forethought.

6. A child learns to care for his/her belongings by using them. Provide shelves and closets easily accessible to the child. If it is the fixed custom of the household that a child put away one group of materials before beginning other activities, the child will learn lessons of orderliness and neatness.

LEARNING ACTIVITIES - continued

7. Lessons in sharing, in taking turns, in playing the game fairly are the valuable contributions of early group play. The child who has not learned to play with other children before going to school will have a double problem of adjustment to the new situation.

8. Do not interfere with the play of a child; offer supervision. Interruptions and suggestions from adults or much older children add to rather than lessen the friction. Each child should stand on his/her own feet without constant recourse of a parent to settle difficulties.

9. Play interests, if wisely directed, become the future avocations which provide for wholesome use of leisure time in adolescence and adult life. Early aptitudes in constructive ability, in music, or interest in birds and animals should be watched for and cultivated with the child in mind.

Children and Toys

Toys should be durable, safe, easily cleaned and artistic in color, form and expression. They should be chosen to allow the child an opportunity for building strength and skill, for constructive and creative play, for dramatic and imitative play and for his/her social and artistic development.

The following chart will explain which toys are best for the child at a certain age and which toys may be hazardous.

Age and Interests	Hazards	Suggestions
The Hand to Mouth Age Up to 2 years	Avoid small toys which may be swallowed; flammable objects; toys with small removable parts; poisonous paint on any object; stuffed animals with glass or button eyes.	Sturdy rattles; brightly colored objects hung in rubber or washable squeak and stuffed dolls or animals; large, soft balls; blocks with rounded corners; push-and-pull toys with strings or rounded handles; nests of objects.
The Explorative Age 2 to 3 years	Avoid anything with sharp or round edges which will cut or scratch; objects with small removable parts; poisonous paint or decoration; marbles, beads, coins; flammable toys.	Sand box with bucket, shovel, and spoon; large peg boards; wooden animals; cars and wagons to push around; tip-proof kiddie cars and tricycles; large crayons; low rocking horse; small chair and table.

LEARNING ACTIVITIES - continued

Age and Interests	Hazards	Suggestions
The "Let's Pretend" Age 3 to 4 years	Avoid toys which are too heavy for child's strength, poorly-made objects which may come apart, break, or splinter; sharp or cutting toys; highly flammable costumes; electrical toys.	Small broom and carpet sweeper; toy telephone; dolls with simple wrap-around clothing, doll buggies and furniture; dishes, minature garden tools; trucks and tractors, nonelectrical train; drum; costume clothes; building blocks.
Beginning of Creative Age 4 to 6 years	Avoid shooting or target toys which will endanger eyes; ill-balanced mobile toys (tricycles, wagons, etc.) which may topple easily; poisionous painting sets; pinching or cutting objects.	Blackboard and dustless chalk; simple construction sets, paints and paint books; doll house and furniture; small sports equipment, skipping rope; wash tub and board; paper doll sets with blunt-end scissors; costumes; modeling clay.
Beginning of Dexterity Age 6 to 8 years	Avoid nonapproved electrical toys; anything too large or complicated for child's strength and ability, sharp-edged tools; poorly made skates; conductible kites; shooting toys.	Carpenter bench; well constructed tools, construction sets; sled; roller skates, playground equipment; kites; approved electrical toys; puzzles and games; sewing materials; dolls; equipment for playstore, bank, filling station.
Specialization of Tastes and Skills 8 years and older	Avoid air rifles; chemistry sets, dart games, bows and arrows, dangerous tools and electrical toys UNLESS used under parental supervision; motor scooters, nonapproved electrical toys.	Hobby materials, arts and crafts; photography; coin and stamp collections; puppet shows; musical instruments; gym and sports equipment; building sets; electric train — safety approved; bicycles, science sets.

LEARNING ACTIVITIES - continued

Exercise on Children's Play

Directions: Respond to the following questions covering the material you have just read on play and the related reading for Activity #6. Refer to that material to check your answers.

1. List three (3) reasons why play is important in a child's life.

   a. ____

   b. ____

   c. ____

2. For each of the following ages, name one appropriate toy which does not appear on the list of suggested toys in your module.

   6 months - __________________________________

   3 years - __________________________________

   10 years - __________________________________

   14 years - __________________________________

3. Name four (4) safety factors which should be considered for toddlers and preschoolers in their toy selection.

   a. ____

   b. ____

   c. ____

   d. ____

ACTIVITY #7. A Look at Hospitalization for the Child and How We Can Help Children Cope with Illness

Directions: Read Marlow, pages 73-94, 358-360. Then read the following information.

Illness and hospitalization are traumatic at every age. For those in the health field this can be a difficult concept to grasp. We see ourselves as genuinely interested in our patients and hospitalization as the logical response to illness. We are quite comfortable in the world of medicine and we foget that our routine procedures, language and equipment are foreign, strange and frightening to the patient. Stripped of clothes, familiar surroundings and friends, the patient experiences a gnawing fear of the future. Certainly the patient feels control has been lost and he/she is told when to eat, bathe, or even sleep. Some of the questions we ask are indeed personal, but the patients' questions seem to be ignored or answered in that strange language which is difficult to understand. Since illness produces stress, the patient is now vulnerable to more stress and all the coping mechanisms are called forth as he/she adjusts to a new role.

LEARNING ACTIVITIES - continued

Children tend to experience illness as a consequence of misdeeds. Parents can foster this guilt with remarks like, "You'll get sick if you don't eat your food....if you play in the water...if you don't wear your sweater." Hospital remarks like "Your tonsils are bad" add to the guilt. Illness is frightening, and frightened parents make the situation more terrifying.

No wonder the child may see hospitalization as punishment, rejection and abandonment. Expecting punishment, the child's fears are confirmed. On admission to the hospital the child is pounced upon by a host of strangers who "take" clothes, temperature, and forcibly restrain her/him as they "take" blood and do a host of other things. In the admission rush, the child has been looking at a world of knees or stretching her/his neck to visualize the faces of the giants. Small wonder the child who has had the freedom of home protests vigorously.

Huddled in the hospital, the child now can examine these new surroundings. What the child sees may not be comforting. Andrew may be hanging by his legs in traction, Jose is swathed in bandages. Lucy is vomiting; Angie is surrounded by tubes that have been poked into her body; and still others are crying. The child might be equally frightened left alone in a small isolation room. It is no wonder that the child is concerned over what will happen.

What does this child need? Love is nature's most potent antidote for anxiety. To an anxious child, a warm, emotional need-meeting relationship is a gift in time of urgency. In reality it is the gift of one's self to another. The nurse is best able to eliminate the child's fears through the child's parents.

Because children are interested in that which will affect them, information about a treatment must be focused on them - how they will feel and what they may do during the procedure. Simple, honest explanations and anticipating guidance are a must; "a shot does hurt, but not for long", "it's all right to cry, but try to lay real still".

Play is the business of childhood and is needed in the hospital as a measure to help the child cope with anxiety and to work out feelings. Watching Edwardo give a toy a "shot" indicates his feelings of the nurse's technique! Play also means space. Mobility is a child's best means of combating stress. A trip to the playroom may produce a different child.

At every age the problems of hospitalization are different. The nurse must recognize this and act accordingly. He/she must recognize this patient as a part — not the center — of a family group. While it is impossible to keep the child progressing as he/she would at home by meeting emotional and physical needs, the process of hospitalization need not be as traumatic.

Measures Recommended to Support Children in Coping with Illness

1. The parent rooming with the sick child.

2. The admission of the child to a nurse rather than to a ward.

3. Unrestricted visiting by parents in pediatric units.

LEARNING ACTIVITIES - continued

4. The care of one child by as small a group of nurses as possible.
5. Honesty in telling the child about procedures.
6. Preparing the child for the discomforts and the degree of incapacity that must be endured during the hospital stay.
7. Encouragement of the child's cooperation with minimization of restraint.
8. Providing children with self-directed play to help them master the feelings which are aroused by medical treatment procedures.
9. Opportunities for direct expression of his/her feelings about hospital experiences.
10. Recreational programs to provide for the outlet of tensions and for satisfying activity with peers.
11. Modification of hospital environment to suit children of various ages.
12. Acceptance of some regression in behavior.

ACTIVITY #8. Changes in Hospitalized Children's Behavior

Directions: Read the following.

Hospitalization imposes stress on everyone. This stress is often more acute in a child because the child may not understand why he/she is hospitalized. Nor may the child understand why the need for painful procedures. This stress often results in behavior changes directed at helping the child cope. While not all behavior is acceptable behavior, nurses and parents need to make decisions about a child's behavior which allows the child some coping mechanisms and some control.

Some children become demanding of parents' time and attention, whining and crying when parents must leave. This is a difficult situation for parents — all of whom will handle the situation in their own way.

Another behavior change that often occurs is regression. Regression is defined as going back to an earlier, more comfortable behavior pattern when faced with stress. None of us can handle a great amount of stress in our lives. Healthy children face some degree of developmental stress daily. When illness and hospitalization are added as stressors, the child is unable to continue handling developmental tasks. Some examples of regressive behavior include: bedwetting after control is partially or totally achieved, returning to bottle feeding after having used a cup, reverting to "baby talk" when clear speech has been learned. None of these behaviors are harmful. They may be distressing to parents but parents need to know that the regression is a temporary means for the child to get through a rough time in his/her life. Once the stress is removed, most regressive behaviors disappear.

LEARNING ACTIVITIES - continued

It is important to remember that regression will occur with stresses other than illness and hospitalization. Children are seen to regress with such events as: arrival of a new baby, change in living environment, or change in family makeup by death, separation, or divorce.

Some Convictions which Influence the Behavior of the Nurse toward Children and Parents

1. The child's body and mind are inseparable. Emotional as well as physical support is derived from comforting, protective, physical care which evolves from studying the child, from understanding his/her health problems, and the scientific principles underlying nursing care. It is given within the context of constructive nurse/parent relationships. This implies sensitivitiy to the parent's responses to health problems and their treatment. It recognizes that activity is purposely planned to meet identified needs and is continually evaluated to determine its value to the patient and to others with whom the nurse is working.

2. Illness and treatment in a hospital can strengthen children's and parent's resources in dealing with stress.

3. Nursing of the hospitalized child entails many activities which are purposefully planned to help the child progress toward physical and mental health. This includes recognition of the importance of help to the child in maintaining warm feelings toward oneself and one's parents.

4. Active participation by the parents in their child's care is as essential for the parent's security as it is for the child's.

5. Concentration on the personality strengths of the child and parents is essential in the provision of nursing care.

6. The known is less frightening than the unknown.

7. All behavior has purpose and reflects the person's past experiences and unique responses to their current life situations.

8. Play which springs from the child's struggle to master anxiety impeding their growth toward maturity has more potential value for the child than does play which is adult directed.

9. Permissiveness which sanctions the direct expression of feeling conserves energy. It provides knowledge from which changes in the environment may be made when they are indicated. However, restrictions on the direct expression of feeling must be imposed when the child's behavior shows that he/she need such limits to prevent guilt, to adapt to reality, and to alleviate fear of his/her own impulses.

LEARNING ACTIVITIES - continued

10. Help prevent maternal deprivation
    a. frequent body contact
    b. continuity of contact
    c. genuine interest in child
    d. variety of sensory stimuli
    e. bridge between child and mother

Review Exercise on the Hospitalized Child and Organizations Concerned with Children

Directions: Respond to the following statements covering Activities #6, #7, and #8 and their respective textbook reading. Answers to this exercise can be found by reviewing Activities #6, #7, #8 and your text.

1. According to your text by Marlow, what is the single most important factor psychologically in a child's admission to a hospital?

   ____

2. Why is it important for the nurse to try to relieve parental anxiety?

   ____

   ____

   ____

3. A hopitalized child may feel ______________________ by parents.

4. Regression is the term used to describe what change in a sick child's behavior?

   ____

   ____

   ____

5. List three (3) examples of regression in a sick child.
   a. ____
   b. ____
   c. ____

LEARNING ACTIVITIES - continued

6. Describe how you would explain regression to a parent whose child has been hospitalized.

7. Define the term "Maternal Deprivation" and indicate its relationship, if any, to the hospitalized child.

8. Why is it important for play activities to be provided for the hospitalized child?

9. List four (4) ways in which the modern hospital has become liberalized in their policies regarding the hospitalized child.

   a. ______

   b. ______

   c. ______

   d. ______

NOTE: If you have any questions, see your instructor.

LEARNING ACTIVITIES - continued

ACTIVITY #9. Medications and the Pediatric Patient

Directions: Read your textbook by Marlow, Chapter 5, pages 98-101 and study the tables on pages 396-97, 536-37, and 644-45. Once you have completed your text reading, continue with this activity.

ADMINISTRACTION OF MEDICATIONS TO INFANTS AND CHILDREN

PRINCIPLES	NURSING RESPONSIBILITIES
I. Computing Dosages	
A standard dosage is nonexistent in the pediatric unit as the dosage varies with the age and weight of the infant. Most drug companies supply medications in a standard adult-dosage strength. Since the pediatric dosage is often small, a slight mistake in the amount of a drug administered is actually a greater proportional error.	Although the doctor prescribes the dosage of a medication, it is the nurse's responsibility to know the safe dosage range of any medication he/she administers to children. If the dosage of a drug prescribed appears to be excessive for the individual infant, the doctor must be consulted. The nursing supervisor is also available for consultation when the nurse is in doubt. Accuracy in computing and administering dosage is essential in pediatric drug administration.
II. Identification	
Accurate identification of the child is essential before a drug is administered. The infant cannot give his/her name. The child is likely to be playful and state a nickname or the name of another child with whom he/she is friends.	The nurse should check the child's identification band and the bed card with the name on the medicine ticket before administering any medication. Giving medications to the wrong child accounts for the greatest number of medication errors in a children's ward.
III. Carrying Out Orders	
Clear, specific medication orders will reduce the possibility of error in drug administration.	Medicine cards should be written for each individual child according to the written orders of the doctor.
Many medications have a cumulative effect in the body and may cause harm if administered over a prolonged period of time.	The nurse should check the medicine cards daily. The doctor should be notified when a medication must be reordered.

LEARNING ACTIVITIES - continued

PRINCIPLES

NURSING RESPONSIBILITIES

IV. Administering Oral Medication

This is probably the easiest, safest and most economical method of adminstering medications, as well as the method best tolerated and understood by the child. As a rule, liquid form is prescribed for children under five. Forced administration of solids or liquids to a struggling child may result in aspiration. The nurse should give all medications in a way that helps establish a constructive relationship with the child.

A child should be praised when he/she cooperates in taking a medication; but, should also be allowed to express inner fears. The nurse should approach a child as if the nurse expected the child to take the medication without difficulty.

A positive, kind, but firm approach will meet with more success than threats or bribes.

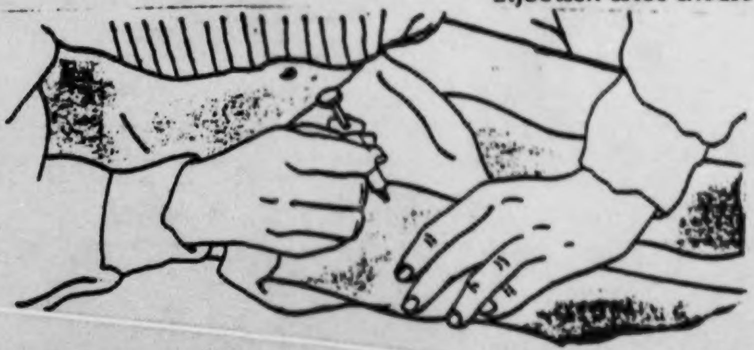
V. Intramuscular Injections

The parental route is probably the most reliable route of administration.

In children, the ideal site for intramuscular injection is the vastus lateralis or quadriceps muscle.

The technique of injection is the same as for adults. (The needle is inserted at a right angle to the skin and care is taken to insure that the needle does not enter a vein.)

Injection sites should be rotated.



On rare occassions when the buttocks are used, the injection should fall in the upper outer quadrant of the buttock.

In all procedures, restraint of the infant or child is necessary in order to assure safe and correct administration of intramuscular injections.

Injections should be given as quickly as possible to avoid prolonging a fear-provoking experience. Older children may assist in the procedure by cleansing the area for the injection.

The need for another person to assist in the restraint of the child depends upon the technique used and the size and strength of the child.

The nurse should hold and comfort the infant following the injection.

LEARNING ACTIVITIES - continued

PRINCIPLES	NURSING RESPONSIBILITIES
VI. Instilling Nose Drops	
Most nose drops act as vasoconstrictors and their excessive use may be harmful.	Nose drops should be discontinued after 72 hours unless they are reordered by the doctor.
A congested nose will impair the infants sucking ability.	Nose drops should be given 20 minutes prior to feedings.
After the drops have been instilled, the infant's head is kept below the level of his/her shoulders for one or two minutes.	To give nose drops, drainage must be secured; therefore, to give the drops, the infant is placed on his/her back, with head over the side of the mattress, and neck extended over a blanket roll. The infant's face is held by the nurse's left hand encircling the chin and cheeks while the drops are inserted with the right hand. If such restraint is not sufficient and a second nurse is not available to assist in the procedure, it may be necessary to "mummy" the child. The nurse or the parent may hold the infant in his/her lap in any way which is comfortable, as long as the head is thrown back.
VII. Instilling Ear Drops	
The shape of the auditory canal in infants and young children differs from that of the adult.	Hold the pinna of the ear slightly down and straight back to facilitate the instillation of ear drops in children under three years of age. Hold the pinna of the ear up and back for older children and adults.
VIII. Intravenous Therapy	
An infant depletes extracellular fluid reserves more rapidly than an adult.	The nurse must observe and report symptoms of excessive fluid loss in infants. These include:
1. Recording Since intravenous therapy can cause a circulatory overload and precipitate cardiac failure, careful observation and accurate recording are essential.	1. sunken fontanels 2. sunken eyes 3. poor skin turgor 4. dryness of the mouth 5. loss of weight 6. concentrated urine

LEARNING ACTIVITIES - continued

PRINCIPLES	NURSING RESPONSIBILITIES
2. Site of Venipuncture Since infants do not have large veins at the antecubital fossa, a scalp vein is the site frequently chosen for infusions.	The nurse must shave the scalp at the site for injection and adequately restrain the infant's body and the head.
3. Rate of Flow The rate of flow of the intravenous solution should be specified by the doctor. An excessively fast infusion rate may precipitate circulatory overload and cardiac failure.	Special pediatric scalp-vein sets and pediatric intravenous tubing should be available in the unit. The desired rate of flow should be established and checked frequently.
4. Addition of Supplementary Medication When a needle pierces the wall of the intravenous tubing, air may be introduced into the veins and result in an embolism. Certain medications may cause untoward reactions when added to specific intravenous solutions.	Supplementary medication should be added by the doctor or registered nurse. 1. Directly into the bottle 2. Using a metri set 3. Using Y-tube equipment 4. Using specially equipped intravenous solutions containing protein Supplementary medications should not be added to intravenous solutions containing protein.
5. Terminating Infusions Before the needle is removed from the vein, the flow should be stopped so that the fluid will not enter the subcutaneous tissues.	A 24-hour intake and output record must be kept for all infants receiving intravenous therapy. The intake and output records should then be affixed to the infant's chart.

LEARNING ACTIVITIES - continued

6. Precautions

The administration of too much or too little fluid or electrolytes will produce clinical symptoms that are observable.

Morphine and barbiturates stimulate the posterior pituitary gland to secrete an antidiuretic hormone regardless of the body's need for water elimination. Therefore, tolerance to the intravenous fluids will be altered.

A transfusion of whole blood will clump when it comes in contact with a solution containing calcium.

When the infusion reaches the 100 cc level, the nurse should check with the doctor for further orders before discontinuing intravenous therapy.

The nurse should closely observe any infant receiving intravenous therapy and accurately report and record observations in the nurse's notes on the chart.

The nurse should report to the doctor that an infant is receiving barbiturates and/or morphine preparations before initiating intravenous therapy. Whole blood should not be administered through tubing that has carried any solution other than normal saline.

Suggestions for Administering Medications to Children

1. If medication must be disguised in some other vehicle, avoid the use of essential foods such as milk, cereal, orange juice, etc., as the child may be conditioned against the future acceptance of the food in the diet.
2. Never underestimate the reaction of a child. The child may require no addition to the medicine other than water.
3. A sip of fruit juice or a peppermint before and after administration may dull the unpleasant taste of a medicine.
4. Vehicles such as honey and syrup are ideal for suspending drugs that do not dissolve in water.
5. Sugarless vehicles should be used as disguises for medications given to diabetic children or those on a ketogenic diet.
6. Fruit syrups are usually acidic in reaction and should not be used for medicines that react in an acid medium (soda bicarbonate, soluble barbiturates, and salicylates).

Calculating Safe Drug Dosages

Even though the doctor will order the dosage of medication that should be given to your patient, as the nurse, you will be responsible for validating your understanding of the doctor's order. You should be able to spot any errors made in calculating dosage and also check for any misreading of an order.

LEARNING ACTIVITIES - continued

Medication Review Exercise

Directions: Since you will be giving medications in your pediatric rotation, now would be a good time to review some of the equivalents and math you have already learned. If you have any difficulty working these problems, see your instructor. Check your answers to questions 1-16 by referring to page 51 of this module.

1. 0.075 gm = _____mg
2. 0.5 liter = _____ml
3. 0.004 gm = _____mg
4. 60 ml = _____tbls
5. 0.001 mg = _____mcg
6. 15 mg = _____gr
7. 4 mg = _____gr
8. 2 tsp = _____ml
9. You have 2 mg tablets available. Give 1/8 gr of the medication to the patient.
10. You have 200 mg tablets available. Give 0.1 mg of the medication to the patient.
11. You have 100 mg (1 1/2 gr) of medication in 2 ml. Give 60 mg of the medication to the patient.
12. You have 125 mg of medication in 5 cc. Give 200 mg of the medication to the patient.
13. You have 1/6 gr of medication in 1 cc. Give 1/8 gr of medication to the patient.
14. You have 32.5 mg tablet available. Give 1/2 gr of the medication to the patient.
15. Child weighing 22 lbs. has penicillin 25 mg/kg of 6 hrs. ordered. How many mg would the child receive?
16. Adult dose of EES is 500 mg. q 8 hrs. Child weighing 4.416 Kg would get what percent of the adult dose (based on body surface) or how many mg?
17. In giving nose drops to an infant, what four (4) precautions would you need to remember?

a. ______________________________

b. ______________________________

c. ______________________________

d. ______________________________

LEARNING ACTIVITIES - continued

There are several rules which have been used for determining medication dosages for children based on age, weight, or size. Some of these rules are explained in your textbook; however, none of these have been completely satisfactory. By far, superior to these rules is the physician's method of calculating dosage according to body surface area. The following chart is for your information in order to see how these calculations are made by the physician.

Calculation of Drug Dosage in Children

Determination of children's doses from adult doses is made on the basis of body surface area which is based on average adult surface area of 1.73 square meters. Body surface, then, is that portion of the body actually exposed to the atmosphere.

Child's Weight		Approximate Body Surface Area of the Child in Square Meters	Approximate Percentage (%) of Adult Dose
*kg	lb.		
2	4.4	0.15	9%
4	8.8	0.25	14%
6	13.2	0.33	19%
8	17.6	0.4	23%
10	22	0.46	27%
15	33	0.63	36%
20	44	0.83	48%
25	30	0.95	55%
30	66	1.08	62%
35	77	1.2	69%
40	88	1.3	75%
45	99	1.4	81%
50	110	1.51	87%
55	121	1.58	91%

*1 kg (kilogram) is equal to 2.2 lbs. (pounds).

LEARNING ACTIVITIES - continued

18. In what muscle or muscles will you safely give small children I.M. medications? Name the muscle(s) and draw a diagram of the appropriate location(s) in the space below.

19. How may the infant's ear canal be opened in order to administer ear drops?

20. When a container of medication comes from the pharmacy with all necessary calculations printed on the label, what is the nurse's responsibility, if any, regarding dose calculation?

21. You must give ampicillin suspension to three year old Mike who screams, cries, and thrashes about at the sight of medicine. Describe your alternatives in this medication administration.

LEARNING ACTIVITIES - continued

22. If a nurse gives medication to the wrong child, what should be done? Write a brief description.

____

____

____

____

____

____

____

ACTIVITY #10. Fluid Requirements for the Pediatric Patient

Directions: Read Marlow, Chapter 5, pages 101-102 and Chapter 14 pages 405-409. After you have completed your text reading, continue with this module.

Young children can become dehydrated very rapidly from diarrhea and vomiting because of their small size. The following information explains the importance of fluid therapy in the small patient.

Fluid Therapy

Although the basic physiology and principles of therapy remain the same for children and adults, there are certain additional factors which must be considered before embarking upon fluid therapy in children.

Certain considerations apply to the infant and small child which are directly related to their size and metabolic activity. In comparison with the adult, the newborn infant is relatively water saturated and fat free. Thus, 70% to 83% of the total weight of the newborn is comprised of water. Compare the body water in the infant to that of the adult in FIGURE 1 on the following page. An initial rapid decline in the ratio of body weight to body water in the first few days of life is followed by a slower decline during the first nine months, at which time the proportions begin to approach adult levels. The comparative increase in total water content is reflected in the relationship of extracellular water to intracellular water. In the newborn, about half the body water is in the extracellular compartment, while in the adult, only about 12% of body water is extracellular fluid.

LEARNING ACTIVITIES - continued

BODY WATER EXPRESSED AS A PERCENTAGE OF BODY WEIGHT

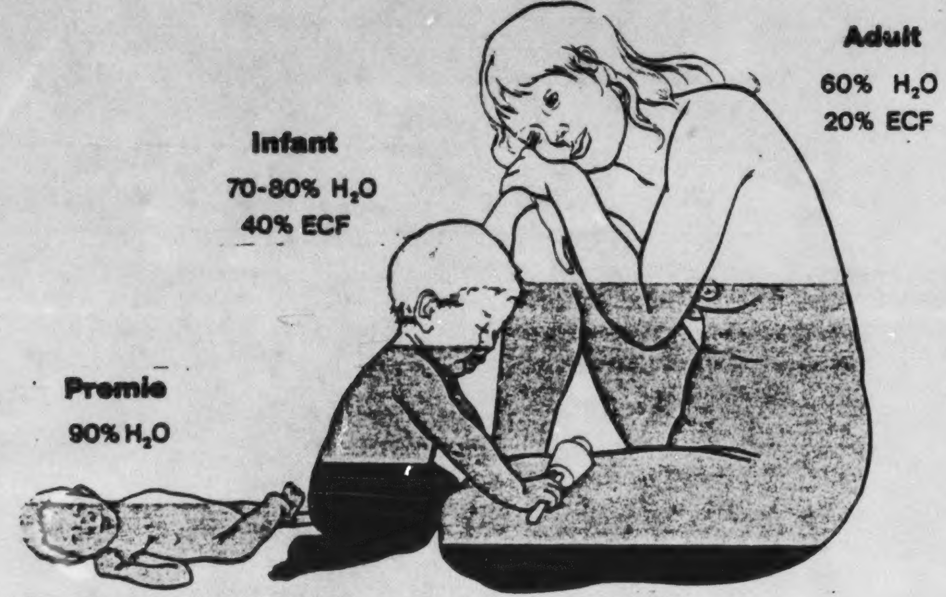


FIGURE I

Water Requirements in the Infant

The daily turnover of water in the infant is more than one-half of the infant's extracellular fluid volume, whereas, in the adult, daily water intake and output is equivalent to about one-fifth of his extracellular fluid. As the infant has proportionately much less reserve, any fluid loss or lack of intake will deplete his/her extracellular fluid very rapidly.

The three-month infant requires at least 140-160 ml/kg/day, whereas the adult requires 40-50 ml/kg/day. This is necessary because of the relatively greater surface area of the infant, involving greater heat production, and requiring a water loss per kilogram of body weight twice that of an adult. Greater urinary water requirements in the infant are also necessary because of the increased production of metabolities with rapid growth and also because of the inefficiency of the immature kidney. The very young infant is relatively unable either to conserve water or to excrete water easily after excessive intake.

Because water exchange in the infant is three to four times more rapid than in the adult, the sodium exchange is correspondingly rapid. Sodium content in the body fluids is easily reduced by short periods of fever and starvation, with continued electrolyte loss in urine. Sodium content may be raised where diarrhea has produced correspondingly greater loss of fluid than electrolytes, and this condition (hypernatremia) is aggravated by concentrated oral feeding or by infusion of solutions of high electrolyte content. The immature kidney cannot regulate sudden large increases in serum electrolytes.

Potassium balance in infants is also susceptible to rapid change. Probably because of growth metabolism, infants may show normal serum values for potassium up to 5.6 mEq./L., and will require proportionately larger daily potassium intake.

LEARNING ACTIVITIES - continued

If you are giving liquids to a child whose electrolytes are out of balance, the following chart can help you determine the best fluid for your patient.

Sodium and Potassium Content of Popular Fluids

	Na mEq./L. *	K mEq./L. **
Apple juice (sweet cider, bottled)	1.7	26
Coca-Cola	0.4	13
Ginger Ale	3.5	0.15
Grape juice (sweetened, bottled)	0.4	31
Pepsi-Cola	6.5	0.77
Milk—whole	21.7	36

* Sodium milliequivalent per liter of fluid.

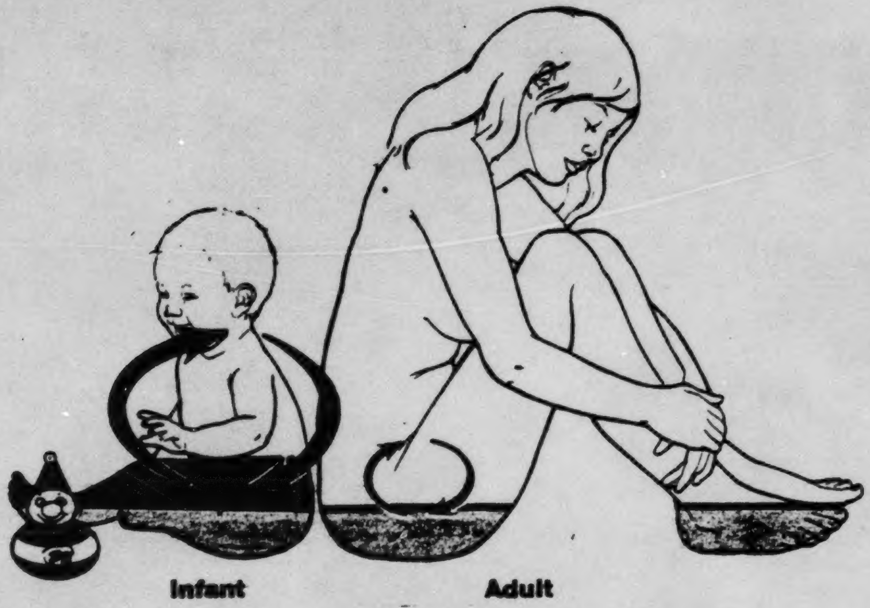
** Potassium milliequivalent per liter of fluid.

LEARNING ACTIVITIES - continued

Compare the Daily Exchange of Water in an Infant and an Adult

(Approximate Daily Water Exchange per Kilogram of Body Weight)

Infant **Adult**


Infant
Adult

Compare pH of Blood

Infant **Adult**

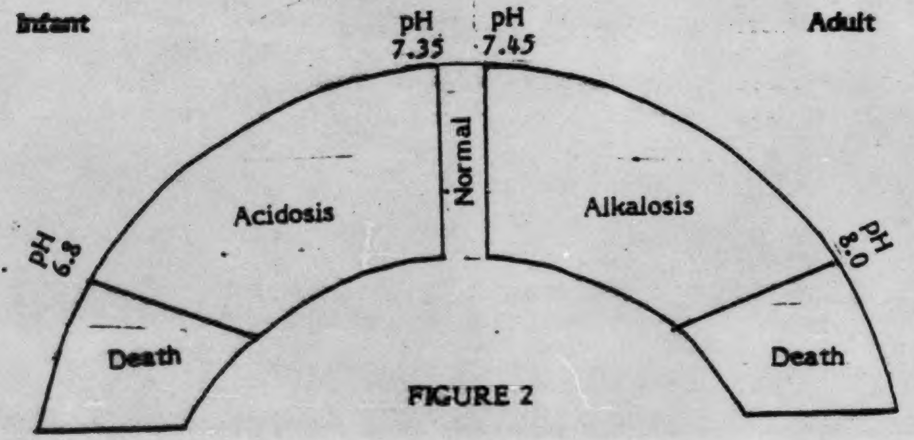

pH
7.35
pH
7.45
Normal
Acidosis
Alkalosis
pH
6.8
pH
8.0
Death
Death

FIGURE 2

LEARNING ACTIVITIES - continued

Knowlege of fluid requirements is essential for maintaining normal body functioning. The following chart can serve as a reference in determining fluid requirements for your patients.

GUIDE FOR DETERMINING FLUID REQUIREMENTS

lb.	Surface Area in M^2 (Square Meters)	24 hr. Maintenance 1500 cc/M^2 (Square Meters)	24 hr. Moderate Dehydration 2400 cc/M^2 (Square Meters)	24 hr. Severe Dehydration 3000 cc/M^2 (Square Meters)
4	0.15	225	360	450
5	.175	260	420	525
6	.20	300	480	600
7	.22	330	530	660
8	.24	360	575	720
9	.26	390	625	780
10	.27	405	650	810
11	.29	440	700	880
12	.31	465	750	930
13	.33	500	800	1000
14	.34	510	815	1020
15	.36	540	865	1080
16	.375	565	900	1130
17	.39	585	935	1170
18	.41	615	985	1230
19	.425	635	1020	1270
20	.45	675	1080	1350
21	.46	690	1105	1380
22	.47	705	1130	1410
23	.485	730	1165	1460
24	.5	750	1200	1500
25	.52	780	1250	1560
26	.535	800	1285	1600
27	.55	835	1320	1650
28	.57	855	1370	1710
29	.59	885	1415	1770
30	.60	900	1440	1800
32	.62	930	1490	1860
34	.65	975	1560	1950
36	.69	1035	1655	2070
38	.71	1065	1705	2130
40	.74	1110	1775	2220
42	.77	1155	1850	2310
44	.8	1200	1920	2400
46	.83	1245	1990	2490
48	.85	1275	2040	2550
50	.87	1305	2090	2610
52	.9	1350	2160	2700
54	.92	1380	2210	2760

LEARNING ACTIVITIES - continued

lb.	Surface Area in M^2 (Square Meters)	24 hr. Maintenance 1500 cc/M^2 (Square Meters)	24 hr. Moderate Dehydration 2400 cc/M^2 (Square Meters)	24 hr. Severe Dehydration 3000 cc/M^2 (Square Meters)
56	.94	1410	2255	2820
58	.96	1440	2305	2880
60	.98	1470	2350	2940
65	1.03	1545	2475	3090
70	1.10	1650	2640	3300
75	1.16	1740	2785	3480
80	1.21	1815	2905	3630
85	1.26	1890	3025	3780
90	1.33	2000	3200	4000
100	1.4	2100	3360	4200
125	1.6	2400	3840	4800
150	1.75	2625	4200	5250
175	2.0	3000	4800	6000
200	2.2	3300	5280	6600

Directions: Respond to the following statements in your own words. The answers can be found in the text.

1. Electrolytes are ______________________________.

2. Homeostasis is ______________________________.

Review Exercise

Directions: Complete the following review exercise covering fluid and electrolyte balance, IV in children, fluid requirements, and their related text readings. The answers to questions 7, 8, 9, and 11 are found on page 51 of this module. If you have questions, see your instructor.

1. Homeostasis is defined as ______________________________

____

____.

2. The normal pH of blood is ______________ and the normal pH or urine is __________.

3. A two-month-old infant may become dehydrated faster than an adult in similar circumstances because:

____

____

LEARNING ACTIVITIES - continued

4. Give the chemical symbols for the following electrolytes:

sodium __________ bicarbonate __________

potassium __________ chloride __________

magnesium __________ carbon dioxide __________

5. List six (6) signs or symptoms the dehydrated infant might display.

a. ____

____

b. ____

____

c. ____

____

d. ____

____

e. ____

____

f. ____

____

6. A danger of too rapid fluid replacement in infants is:

____

____

LEARNING ACTIVITIES - continued

The following formula may be used to calculate IV rate in drops per minute provided you know the ordered number of cc's per hour. The "drip factor" refers to the number of drops per cc. that your particular equipment delivers. For Travenol brand equipment the drip factors are 10 gtts./cc. for adult drip, and 60 gtts./cc. for pediatric or mini drip.

Formula

$$\frac{\text{cc./hr. X drip factor (gtts./cc.)}}{\text{60 (min./hr.)}}$$

Example: For an adult patient the doctor orders 150cc./hr. as the I.V. rate. To calculate gtts. min:

$$\frac{\text{150 cc./hr. X 10 (adult drip factor) =}}{\text{60 (min./hr.)}}$$

$$\frac{1500}{60} \quad \text{or} \quad \begin{array}{r} 25. \\ 60\overline{)\,1500.00} \\ \underline{120} \\ 300 \\ \underline{300} \\ 0 \end{array}$$

Answer: 25 gtts./min.

Using the same formula, calculate the following drip rates.

7. For an infant, order is for 20 cc/hr. pedi. drip.

LEARNING ACTIVITIES - continued

8. For a toddler with diarrhea, order is for 75 cc./hr. pedi. drip.

9. For an 18-year-old, order is 130 cc./hr. adult drip.

10. Why do we use pedi. or mini. drip equipment on small children?

____

____

11. You have 1000 cc of IV solution to run over 24 hrs. How many pediatric gtts/min. of the solution will you give the patient?

LEARNING ACTIVITIES - concluded

12. Using the following situation, correctly fill in an I & O sheet using a form from your local clinical facility.

    Johnny's IV rate is ordered to be 25 cc/hr. He also is on a diet of pureed foods and Similac with Iron. He receives 250 mg of Ampicillin, diluted in 50 cc of IV fluid q.i.d. to treat meningitis. After each dose the IV tubing is flushed with 10 cc of fluid. The Ampicillin is on the following schedule, 0200-0800-1400-2000. Johnny drinks 6 oz. of Sim. cFe @ 0800; 5 oz @ 1230; and eats 2 tbsp. of cereal @ 0800 and 1 tbsp. each of fruit and carrots @ 1230. Johnny's diaper is changed 6 times between 0730 and 1500 and he has a soft yellow stool @1000. Specific gravity of urine is checked @ 0900 and is 1.007. His mother stays with him during the day and goes home at night.

ANSWERS

ACTIVITY #9

1. 75 mg
2. 500 ml
3. 4 mg
4. 4 tbls
5. 1 mcg
6. 1/4 gr.
7. .07 gr.
8. 10 ml
9. 4 tab.
10. 1/2 tab
11. 1.2 cc
12. 8 cc
13. .75 or 3/4 cc
14. 1 tab
15. 250 mg q 6 hrs.
16. 9%

ACTIVITY #10

7. 20 gtts/min
8. 75 gtts/min
9. 22 gtts/min
11. 42 gtts/min

NURSING CARE OF CHILDREN

Module B - The Newborn

RATIONALE

Many newborns are admitted to the Pediatric Units for treatment or correction of various conditions. For this reason, you must be familiar with normal newborn characteristics and problems associated with newborns.

PERFORMANCE OBJECTIVES

To the instructor's satisfaction, you will:

1. Identify growth and development of the healthy newborn.
2. Identify nursing needs of newborns.
3. Describe conditions commonly associated with the newborn.
4. Describe nursing care appropriate to these conditions.

CLINICAL OBJECTIVES

In the clinical area and to the instructor's satisfaction, you will:

1. Differentiate the normal growing and developing of the newborn with one who has problems in growth and development.
2. Assess the interaction between parents and the newborn.
3. Assist a mother to initiate and maintain breast or bottle feeding.
4. Give appropriate nursing care when given a newborn with a congenital abnormality.

LEARNING ACTIVITIES

Directions: The material needed to complete this module is included in this section and in Marlow's Textbook of Pediatric Nursing, Fifth Edition. Exercises are included to help you to prepare for the Post Test and for any unannounced quizzes that may be given. If you have any questions, ask your instructor to assist you.

LEARNING ACTIVITIES - continued

ACTIVITY #1. Growth and Development of the Newborn

Directions: Read the following.

NOTE: The term newborn as it is used in this module refers to the period from birth to 28 days of age.

Characteristics of Healthy Newborn

I. Physical Growth and Development

  A. Cannot hold head steady

  B. May lift head momentarily when lying on abdomen

  C. Has all reflexes

    1. Tonic neck

    2. Moro or startle

    3. Rooting and sucking

    4. Grasp (with fingers and toes)

  D. Follows objects with eyes

    1. Sees but has difficulty focusing

    2. Sees the colors red and soft yellow best

  E. Does not perspire

  F. Does not have tears

II. Social Development

  A. Seeks to establish eye contact with primary caretaker

  B. Recognizes mother (or mother-figure)

  Shows different responses to different people by different body movements

  C. Will make facial expressions

  D. Communicates by crying

  E. May make sounds other than crying

LEARNING ACTIVITIES - continued

III. Psychological Development

   A. Begins to learn to trust

      For trust to be learned, needs must be met quickly

   B. If trust is not learned, learns mistrust

ACTIVITY #2. Cleft Lip and Palate

Directions: Read Chapter 12, pages 274-279 in Marlow's Textbook of Pediatric Nursing, then read the following information.

Cleft lip and palate are thought to result from failure of fusion of parts of the face during embryonic and fetal development. It may involve just the lip, maxilla alone, or other structures of the face. Often the cleft lip extends up into the base of the nose. Cleft lip and palate seems to run in families so is thought to have some hereditary base. Otherwise a cause is not known.

Cleft Lip

The problems here are threefold.

The child looks different. Parents may feel repulsed, guilty, fearful, and hesitant to show off the baby.

Another problem is that the child cannot suck because they cannot make a seal with their lips around the nipple. This is frustrating to the child and may pose nutritional problems if other feeding alternatives are not used.

The third area of concern is the child's teeth. If the cleft extends into the gum, dentition may be impaired. Teeth in the area of the cleft may not erupt or may erupt out of the normal position.

Cleft lip, particularly unilateral, is often repaired early. This allows the child to suck early in life before he forgets how. It also allows for dental treatment early and improves the appearance.

Nursing Care

Preoperative care involves attention to good nutrition and fluid status and preventing trauma to the lip. The infant will be fed by dropper or a long nipple with large holes. The infant will have difficulty feeding. They may dribble and drool or lose part of the feeding. If the cleft extends into the base of the nose, the child may aspirate and choke on some of the feeding. They must be held in an upright position during feeding to prevent as much of this as possible.

LEARNING ACTIVITIES - continued

Postoperative care is directed towards maintaining integrity of the lip repair. Depending on the physician, the child may not be allowed to suck for several days or may be bottle or breast fed right away. The baby will be fed as preoperatively (if not allowed to suck). No matter what form feeding takes, the sucture line must be kept clean. Cleaning is usually done after feeding with peroxide and Neosporin ointment. Another important factor in assuring good healing is to avoid strain or pull in the incision. This is done by the doctor placing a Logan Bar or band aid across the line. The nurse assists in this by preventing crying as much as possible, by keeping the baby off his/her stomach and by gently restraining his/her hands.

Total repair with good cosmetic results may require more than one operation as the child grows. Good repair is usually possible.

Cleft Palate

Children with cleft palates have considerably greater problems than do those with cleft lips. These problems are not so much with appearance as with nutrition, fluid balance, respiratory disorders, and speech.

Nutrition is a great problem because the baby cannot suck. Because of the connection between the mouth and nasopharynx, the baby cannot create the vacuum necessary to suck. Also any food (formula or solid food) taken into the mouth gets into the posterior nasopharynx and thence into the trachea and lungs. This child requires feeding modifications and even with these usually loses weight and aspirates. Feeding usually takes from one to two hours and is quite messy due to choking, coughing, and spitting.

The respiratory congestion and frequent infections are related to the aspiration problem.

Speech development is impaired because the child cannot hold air in his/her mouth to force out in words. The air escapes up through the nose and makes gutteral sounds. This speech problem often persists after repair of the cleft palate and requires speech therapy. Therefore, repair is desired between two and three years before speech is well established.

Nursing Care

Preoperative care of the child with a cleft palate takes place primarily at home. The child's initial hospitalization is for evaluation purposes and also to allow time for parents to be taught how to care for the child. The two primary areas about which doctors and nurses need to teach parents are maintenance of nutritional status and prevention of infection in the cleft.

The baby must keep its fingers out of the mouth. The cleft is easily infected and some doctors advocate restraining the hands and arms until the child is old enough to keep them out of the mouth. Since this may be psychologically detrimental, this action is rarely taken. The baby must be fed in an upright position to minimize the aspiration problem. As mentioned earlier, feeding must be done slowly and with great patience. If their child seems very prone to choking, parents may be taught to suction the throat. Suction machines are often made available for home use.

LEARNING ACTIVITIES - continued

In the hospital these same priorities exist. When surgery is imminent, nutritional and fluid status become of greatest importance.

Postoperative care continues to revolve around nutrition and protection of the cleft repair site. The child will be maintained on IV fluids and/or gastrostomy feeding initially. After a few days, oral sterile water feedings are started. The progression is from weak (1/4 strength) formula up to full strength after which solid foods are added as appropriate for the child's age. Restraints are used for a few days postoperatively to prevent interruption of the suture line.

Above all, the child with a cleft lip and/or palate needs to feel loved and accepted throughout all aspects of his/her care and treatment. Repairs of cleft palates, particularly, take a long time and are costly. For qualifying families, crippled children's services are available to handle part or all of the cost. Parents need to be guided to this valuable source of help.

ACTIVITY #3. Care of the Infant with Congenital Anomalies (Abnormalities)

Directions: Read Textbook of Pediatric Nursing by Marlow, Chapter 11, pages 248-251. Now read the following information.

Atresia of the Esophagus

In this condition, the esophagus, instead of being an open tube from the throat to the stomach, is closed at some point. A fistula between the trachea and the esophagus is a common associated anomaly. At birth the infant has excessive mucus and may become cyanotic. When fed, the infant chokes, sneezes, and coughs. Some of the feeding may be aspirated and pneumonia may result. Definitive diagnosis is made by means of x-ray.

Immediate operation is necessary. An anastomosis of the upper and lower segments of the esophagus may be done and the fistula closed. If there is no lower portion of the esophagus or the distance is too great, a cervical esophagostomy and gastrostomy is performed and later a colon transplant is done. The infant is fed through the tube inserted into the stomach and sutured in place by the surgeon. (The mucus drains through the esophagostomy opening.)

Gastrostomy Feeding and Care

Equipment needed includes warm formula, sterile syringe, sterile water, infant pacifier.

Procedure

Prior to introducing any formula or water, gently aspirate any remaining stomach contents. If there is greater than a prescribed volume (the doctor will specify), hold the feeding and check with the physician. If the stomach is empty or only a small amount of aspirate is obtained, go ahead with the feeding.

LEARNING ACTIVITIES - continued

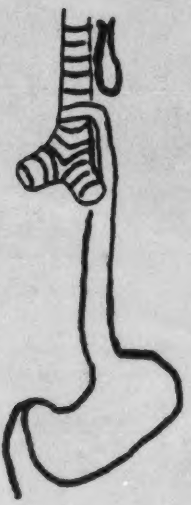
Attach syringe to the gastrostomy tube and fill with the formula before the clamp is removed. This will prevent air from being forced into the stomach. The syringe is then elevated to allow the fluid to run slowly into the stomach. Force should never be used. Avoid distention in introducing air into the stomach or feeding too rapidly. When the formula is passing through the lower end of the syringe, pour in a small amount of water to rinse the tubing. The clamp should be applied to the tubing before air enters the tubing. During the feeding, the infant is given a pacifier to help satisfy the need for sucking, and relaxes them while feeding. When the feeding is finished, the infant should be held quietly for a time. The skin around the gastrostomy tube must be kept clean to prevent irritation. Care is used in changing the dressing so that the tube is not dislodged.

Most physicians prefer that for infants under one year, the gastrostomy tube be left open, unclamped, and attached to the syringe barrel at all times. This prevents gastric distention by allowing air and gastric contents to reflux up the tube into the syringe barrel. This is really just artificial burping! When the baby strains or cries, milk will go up the tube; but when he relaxes, it enters the stomach again. Their reasoning is not to be concerned about air entering the stomach; after all, babies swallow large amounts of air during normal feedings.

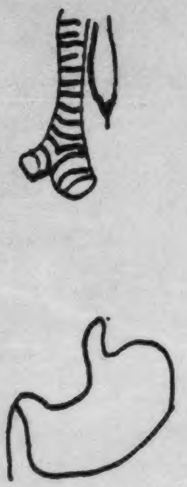
If a cervical esophagostomy has been done, oral feedings should be given so these infants learn tastes and consistencies of food. They are given formula or strained foods suitable to their age orally. Thus, they will have the sensation of chewing and swallowing. As they swallow food it will come into the opening in their neck. A small towel or similar item is used at the opening in the neck to collect the drainage created. If this feeding is not done, it will be very difficult to get these infants to accept foods when they are able to eat.

The diagram on the following page will help you understand the three most common types of esophageal malfunction.

LEARNING ACTIVITIES - continued



A



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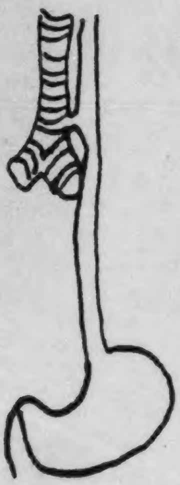


C

The three most common types of esophageal malfunction:

A. Esophageal atresia and fistula

B. Atresia

C. Tracheoesophageal fistula

If abnormality exists as in diagram A above, repair is somewhat simplified. There is enough length of esophagus present. It is detached from the trachea and anastomosed to the upper esophagus.

If the abnormality exists as in diagram B above, repair is very difficult. There is not enough length of esophagus to make anastomosis possible. Correction may be attempted with the use of a prosthetic device. Use of these has met with varying success. The prosthesis cannot have peristalsis and may be rejected since it is foreign material.

In diagram C, above, there is no true atresia. Correction is made by ligating the esophageal connection to the trachea.

All of these procedures carry with them one major problem — that of stricture of the esophagus in the area of anastomosis or ligation.

LEARNING ACTIVITIES - continued

Nursing Care

Preoperatively: Of prime preop importance is the prevention of aspiration. Gastrostomy feedings are used to accomplish this and to maintain the baby's nutritional status while awaiting surgery. (See reading on gastrostomy feeding in this module beginning on page 5.)

Postoperative: Postop care involves following the proper feeding technique as ordered. This will probably be gastrostomy feeding for several weeks with gradual reinstitution of small amounts orally. While the baby is being gastrostomy fed, it is vitally important that sucking be provided with a pacifier. Sucking satisfies basic needs of the baby, is a comfort, and will be the baby's means for getting food at a later date. If sucking opportunities are not provided, they may forget how to suck. The baby's hands may need to be restrained to prevent dislodging of the gastrostomy tube. Periodically, sometimes for weeks, the esophagus must be dilated to prevent stricture. This will be done several times daily by the physician.

It is imperative that the nurse know when dilations occur. The nurse should not feed the child prior to dilation. If dilation were done immediately after a meal, the baby would probably vomit and possibly aspirate.

Total cure of this problem takes a long time. Some children who are four and five years old are still having difficulties, such as swallowing, stricture, and others.

ACTIVITY #4. Vomiting and Diarrhea

Directions: Read Textbook of Pediatric Nursing, by Marlow, Chapter 14, pages 409-418. Then read below.

Vomiting and diarrhea are only symptoms or manifestations of some other disorder(s). We consider them as separate entities because they are a part of many disorders and because of their devastating effects on infants. Infants are more prone to develop vomiting and diarrhea because of their greater susceptibility and difficulty combating infections. Because infants have a high percentage of body water and rapid water turnover, even small water losses are poorly tolerated. If death occurs, it is most likely due to dehydration and/or electrolyte imbalance.

When diarrhea occurs and if severe, a state of metabolic acidosis exists due to the loss of bicarbonate from the G.I. tract. Since infants do not tolerate swings in acid-base balance, diarrhea is one of the primary causes of infant illness and death in the world.

Some known causes of diarrhea include contaminated food or water, improper preparation of formula or food, unbalanced diet, overfeeding, contact with another sick person, allergies, and emotional upset and some drugs. The organisms most often seen in infectious diarrhea include Staph, Aureus, Shigella, Salmonella, and Typhoid.

LEARNING ACTIVITIES - continued

Characteristics of the Infant with Diarrhea

Symptoms may vary in severity depending upon the severity of the diarrhea. Stools become more and more frequent and less solid. The stool color changes from yellow-brown to yellow, to yellow-green to green. The odor is very foul. The stool is passed with explosive force usually accompanied by crying. Quickly the perianal area becomes excoriated. Fluid loss can be noted as there ceases to be substance to the stool and the colored liquid soaks into the diaper. The child becomes more and more lethargic. There is evidence of dehydration in the dry mouth and skin, sunken eyes and fontanels, loss of skin turgor, decreased urine volume, and weight loss. There may or may not be elevated temperature initially. The temperature will rise as the condition gets more severe.

Care and Treatment

Care is directed toward correcting the fluid and electrolyte imbalance, usually with IV infusions, and treating the cause of the diarrhea. A stool culture will be necessary to identify the causative organism. The child with infectious diarrhea will be placed in isolation. Fluid and electrolyte replacement will be ordered on the basis of the degree of dehydration and electrolyte imbalance and the general condition of the child. The child will be N.P.O. until the diarrhea subsides. The reason for this is that anything in the G.I. tract further irritates it and prolonges the diarrhea. Fluid replacement will be accomplished slowly because too rapid replacement could cause fluid overload. Nursing care is involved in many areas of this child's care. If the child is N.P.O., sucking needs to be provided. The child's mouth needs to be moistened and lips protected. Careful attention to skin care is a priority, especially the excoriated anal area. Zinc oxide ointment (Desitin; Perianal Cream) is of value. Close observation is a must. The nurse is watching for any changes in condition -- good or bad. Fluid intake and output will be carefully monitored. In fact, nurses often weigh the baby's diapers for accurate I & O measures. The child will be weighed daily to give an indication of the effectiveness of treatment. Specific tests the nurse will be doing include frequent urine tests, specific gravity tests as a check of renal function, and hemoecult tests on stools to see if the irritation is causing bleeding in the colon. There may be other tests added to these.

As the child improves, oral fluids may be permitted. These will begin with water and other clear liquids and progress through diluted to full strength formula. The child may be placed on a diet consisting of bananas, rice, apples (peel) and tea (BRAT). These are nonirritating and have an anti-diarrhea effect. Also as the child improves, there may be opportunities for the nurse to help educate the family in ways of preventing recurrences of this problem.

Vomiting, like diarrhea, is a symptom of some other problem. The child with diarrhea will also vomit due to general gastrointestinal upset. Vomiting leads to a state of metabolic alkalosis due to loss of hydrochloric acid from the stomach. As with diarrhea, it also leads to dehydration and electrolyte imbalance.

LEARNING ACTIVITIES - continued

Some fairly benign causes of vomiting or regurgitating include: overfeeding, failure of person feeding baby to bubble (burp) the child adequately, and feeding too fast. These causes can be taken care of by educating the parents or caretakers. More serious causes of vomiting include: improper formula, infection of G.I. tract or other body system, obstruction of G.I. tract as occurs in pyloric stenosis, and emotional upsets in the family. This last situation is usually called rumination and is a voluntary vomiting on the part of the baby. This usually requires some family psychotherapy.

Treatment and Nursing Care

Treatment is directed toward the underlying cause of the vomiting. However, treatment of the effects of the vomiting are usually of first priority. The child may be N.P.O. and have an IV if his/her condition is serious. Then the child will be advanced to clear liquids. Before milk products are restarted, the child may be placed on the BRAT diet. If milk products are found to be the cause of the vomiting, the child will then go on a soy formula such as Isomil or Neomulsoy.

ACTIVITY #5. Imperforate Anus

Directions: Read Textbook of Pediatric Nursing by Marlow, Chapter 11, pages 247-248, then read the following.

Imperforate anus involves a problem with embryonic development resulting in the absence of a connection between the rectum and anus. The child has no way to pass stool. This must be corrected early in life in males. Females may have a recto-vaginal or other fistula which allows the passage of stool. The imperforate anus may be discovered in the delivery room, or in the newborn nursery when rectal thermometer cannot be inserted. It may not be suspected until 24 hours after birth when no meconium stool has been passed. In the presence of a recto-vaginal fistula, it may not be discovered until after the baby has gone home.

Surgical correction is usually done. Care before surgery involves good observations of the newborn to detect the problem. After surgery, care may involve only keeping the anal area clean. If a colostomy has been done, colostomy and skin care will be needed.

ACTIVITY #6. Exercise On Gastrointestinal Abnormalities

Directions: Complete the following exercise by answering each statement in your own words. The answers can be found in your assigned readings.

1. How does cleft lip occur? ______________________________

____

____

LEARNING ACTIVITIES - continued

2. List four (4) major problems the child with cleft lip and/or palate will have.

3. When will a cleft lip usually be repaired? Cleft palate?

4. What are the nursing care priorities in the preoperative care of a child with a cleft lip?

5. What is the first priority of nursing care postoperatively?

6. What is a Logan Bar and how is it used?

LEARNING ACTIVITIES - continued

7. Describe the equipment necessary in the postop care of a baby after cleft lip repair.

8. What are the nursing care priorities in the preoperative care of a child with a cleft palate?

9. What are the nursing responsibilities in the care of the child post cleft palate repair?

10. What equipment will be necessary to have prepared to care for the child after cleft palate repair?

LEARNING ACTIVITIES - continued

11. What symptom in the pregnant woman gives a clue that esophageal atresia may be present in the fetus?

12. How is esophageal atresia usually first suspected in the newborn nursery?

13. What other abnormality usually goes along with esophageal atresia?

14. List four (4) symptoms which may be present if the child with esophageal atresia is fed.

15. Describe "cervical esophagostomy" and explain its use.

LEARNING ACTIVITIES - continued

16. What precautions do you take with anyone having a gastrostomy?

17. Why is care of the skin around the gastrostomy important?

18. How does a baby with esophageal atresia and a gastrostomy burp?

19. What is the major long-term problem faced by the child with a repaired esophageal atresia?

20. What is the child's major difficulty with imperforate anus?

LEARNING ACTIVITIES - continued

21. How is imperforate anus usually discovered (3 ways)?

22. What difference usually exists between males and females with imperforate anus?

23. Why may a temporary colostomy be necessary in the treatment of imperforate anus?

24. Outline the nursing responsibilities of post surgical correction of an imperforate anus.

LEARNING ACTIVITIES - continued

25. Why must treatment for a baby with vomiting and diarrhea be obtained more quickly than for an adult with the same problem?

26. Severe diarrhea produces a state of metabolic ______________.

27. Why is the above harmful? ______________

28. Vomiting produces a state of metabolic ______________.

29. Why is the above harmful? ______________

30. Outline the progression of care a baby with vomiting and diarrhea would receive.

LEARNING ACTIVITIES - continued

ACTIVITY #7. Congenital Neurologic Disorders

Directions: Read Textbook of Pediatric Nursing, by Marlow, Chapter 12, pages 296-308 and then read the following.

Spina Bifida

Spina Bifida Occulta

A defect in the vertebral arches (occurs in 3 out of 1,000 births).

Signs and symptoms

Overlying skin of back may be normal. There may be a dimple, a lipomatous mass, a tuft of hair. Rarely is associated with hydrocephalus.

Treatment

May be asymptomatic. Surgical exploration should be performed only when surgery is indicated.

Comment

These children rarely develop neurologic signs such as motor and sensory disturbances or dysfunction of bladder and bowel control.

Spina Bifida Cystica

There are two types; meningocele and meningomyelocele.

Meningocele

A defect in the vertebrae associated with a cystic swelling composed of the meninges only. Spinal cord is entirely confined to the vertebral canal.

Signs and symptoms

Visible sac is well covered with skin, but is translucent. No motor, sensory, or sphincter disturbance.

Treatment

Surgically removed probably within first year of life.

Meningomyelocele

Severe form; the cystic mass contains nerve roots and spinal cord which has left the vertebral canal.

Signs and symptoms

Poorly formed layer of cells in a bluish sac. The pattern of the neurological lesion depends largely on the position of the sac. Main areas of paralysis: lower limbs, bowel, bladder.

LEARNING ACTIVITIES - continued

Complications

1. Potential of meningitis if sac ruptures
2. Development of hydrocephalus (70% of infants with meningomyelocele have hydrocephalus)
3. Bilateral dislocated hips
4. Possible bladder infections due to lower paralysis

Treatment

1. Surgical removal of sac
2. Shunt insertion for hydrocephalus

Nursing care

1. On abdomen and cover lesion with telfa or petrolatum gauze
2. No diaper
3. Genitalia clean to prevent infection
4. Bradford frame hole to urinate and defecate out with good skin care
5. Check head size daily
6. Adequate nutrition
7. Accurate observations
8. Vitals

Encephalocele

(Cranium Bifidium): Herniation of brain which is manifested by protrusion of brain substance through congenital or traumatic opening of the skull.

Treatment

Surgical removal is possible.

Prognosis

Depends upon the extent and location of the encephalocele.

Craniosynostosis

This is a premature closure of sutures of the skull usually shortly after birth.

LEARNING ACTIVITIES - continued

Treatment

Linear craniectomy

Complications

Brain damage and mental retardation

Prognosis

Good prognosis if treated early

Hydrocephalus

An abnormal condition characterized by an increased volume of normal cerebro spinal fluid (CSF) under increased pressure and is commonly due to an obstruction in circulation of this fluid. CSF circulates in a closed system and does so continually, being formed and then absorbed so that the net amount of about 150 ml remains constant.

Three possible mechanisms may be responsible for development:

1. Over-production of CSF occurs in rare instances of a tumor of the choroid plexus.
2. Defective absorption of CSF.
3. Most common is obstruction of CSF pathways, resulting in dilation of ventricles. Three major causes of CSF obstructions:
    a. Inflammation
    b. Congenital malformations (the most common cause)
    c. Tumors

Symptoms

1. Head size increases
2. Full, bulging fontanel
3. Downward deviation of the eyes ("setting sun" eyes)
4. Ventriculogram and/or pneumoencephalogram. These x-rays show the outline of the CSF spaces with the injected air.

Treatment

Either a shunt which is explained on the next page or a choroid plexectomy which is the surgical removal of choroid plexus for a decrease in production of CSF.

LEARNING ACTIVITIES - continued

Operative Procedure for Hydrocephalus

A ventricular atrial shunt is placed in the right side of the head and leads through the jugular vein into the atrium on the baby's right. Or on the left is a ventriculoperitoneal shunt which extends subcutaneously from the head to enter the peritoneal cavity in the upper abdomen.

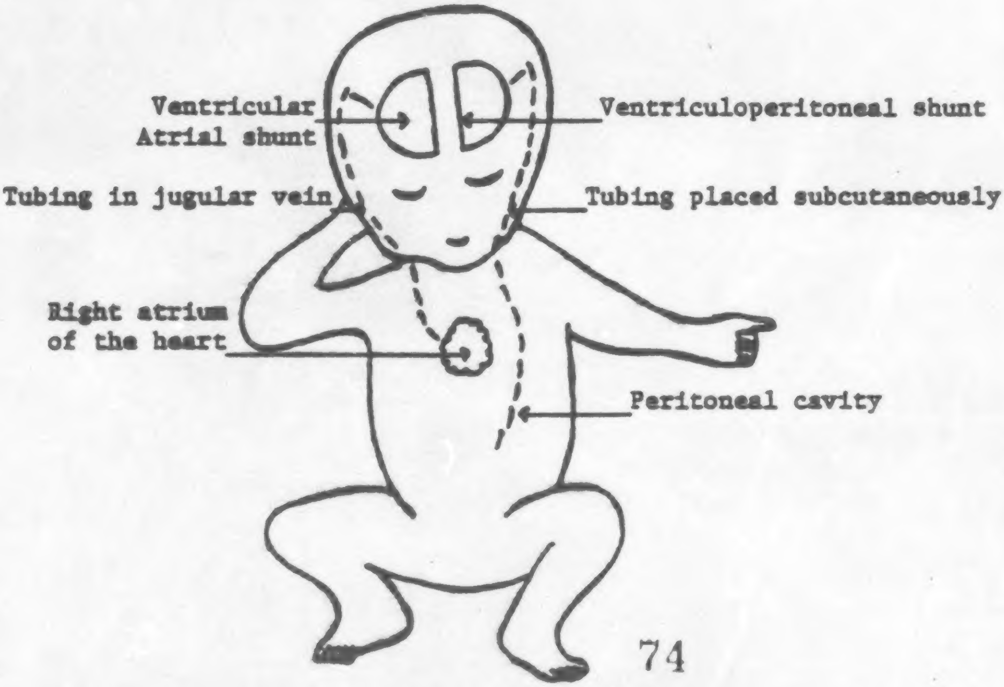
The shunt is made from silicone tubing of a special formula and consists of three component parts:

1. cardiac tube with a split valve in the side wall near the tip
2. ventricular tube with side perforations
3. pump

The slit valve is designed to allow cerebrospinal fluid to flow freely when the pressure in the tube exceeds 4 cm to 8 cm of water. When the intraventricular pressure falls below this level, the valve slits remain closed preventing the escape of fluid on the back flow of blood. The pump, when pressed with the fingers through the skin, can overcome obstructions in the tube and drain the spinal fluid at a more rapid rate. Study the diagram below to help you understand this procedure.

Prognosis

Prognosis depends on the time treatment begins, the success of the shunting, good follow up care, and the innate intelligence and motor abilities. Successful shunting must be maintained throughout the life of the child.


Ventricular
Atrial shunt
Ventriculoperitoneal shunt
Tubing in jugular vein
Tubing placed subcutaneously
Right atrium
of the heart
Peritoneal cavity

LEARNING ACTIVITIES - continued

PRE-OP

1. Observe carefully
2. Check vitals
3. Report changes promptly
4. Note anorexia or vomiting
5. Hold head with good support
6. Protect head with lamb wool
7. Change position frequently

POST-OP

1. Vitals changes
2. Check for irritability, bulging of fontanel, vomiting, elevated temp.
3. Elevate head slightly

Directions: To help you learn the information you have just read, complete the following exercise in your own words. Review the previous material to check your answers.

1. Define the term hydrocephalus.

2. List three (3) possible causes of hydrocephalus.

   a.

   b.

   c.

3. List six (6) signs of increased intracranial pressure in the infant.

   a. d.

   b. e.

   c. f.

LEARNING ACTIVITIES - continued

4. Prognosis for the hydrocephalic child is ______________________________ .

5. Define the following terms.

   a. Spina bifida: ______________________________

   ____

   b. Meningocele: ______________________________

   ____

   c. Myelomeningocele: ______________________________

   ____

6. The main preoperative complication for a child with a myelomeningocele is:

   ____

7. Describe how you would position this child preoperatively. ______________

   ____

   ____

8. Write a brief description about why this child might be incontinent of urine or stool.

   ____

   ____

   ____

ACTIVITY #8. Congenital Orthopedic Conditions

Directions: Before you read the information below, read Textbook of Pediatric Nursing by Marlow, Chapter 12, pages 318-325.

Clubfoot

In this condition, one or both feet are turned or twisted out of the normal position and cannot be returned to the normal position. There are various types of clubfoot all of which interfere with the child's ability to walk. The cause is unknown, but since it runs in families, there must be an hereditary or genetic basis. See the picture of unilateral clubfoot on page 25 of this module.

Treatment is done early and consists of a series of devices which gradually move the foot back to a normal position. Usually a series of casts or a Dennis Browne Splint is used. In addition to casts, surgery on tendons may be necessary to release tight areas.

LEARNING ACTIVITIES - continued

Congenital Hip Dislocation

In this condition the head of the femur is out of or slips out of the hip socket. It may be uni- or bilateral. Uncorrected it causes difficulty walking and perhaps eventually destruction of the hip joint. This problem should be recognized during the newborn period by the limited abduction of the femur, increased skin folds in the affected leg, and usually shortening of the affected leg. (See the pictures on congenital orthopedics anomalies on page 24.)

Treatment is begun early and involves placing the head of the femur in the acetabulum (socket) and applying some pressure. Maintained over several months this makes the socket deeper and allows tendons to be adjusted to hold the femur in place.

The proper positioning of the femoral head may be accomplished by use of a Frejka splint, modified Bryants traction, or a cast. With the Frejka splint or cast the legs are held with hips and knees flexed, abducted, and externally rotated. The cast is most often used. It covers from the waist down to the ankles or just above on both legs. There is a bar placed between the legs. This is called a Hip Spica Cast. This treatment will be maintained for six to nine months in the infant. A longer period may be necessary for an older child.

Cast Care

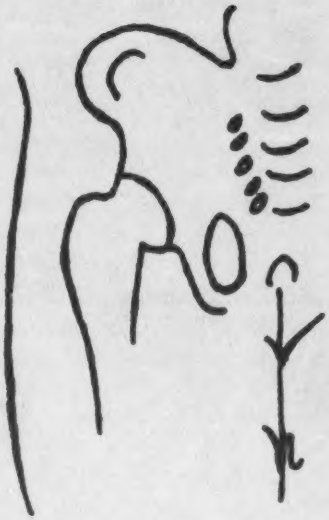
People in casts, particularly children, have special needs. Casts also have special needs. Children in casts are pretty much immobilized. It takes creative nurses and parents to find ways in which the child can release energy and occupy their time. Other problems include physiologic ones such as a tight cast. Hip spicas are fitted snugly to children so they don't wiggle out of them. Nurses and parents must check to see that casts are not too tight and interfere with circulation. Even casts for clubfoot may become tight. Circulation checks are done frequently. When casts are first applied, they have rough, crumbly edges. These can be uncomfortable and plaster crumbs can get inside the cast and cause skin irritation. Therefore, the edges of any cast should be covered. The procedure is called "petaling the cast" because pieces of adhesive tape are cut in petal-like shapes and taped over the edges. It is not imperative that the tape be petal-shaped. It is, however, imperative that all rough edges be covered.

Casts are lined with soft, absorbent padding. This protects the skin. It also can absorb moisture as from urine and stool. This padding cannot be cleaned nor removed without removing the entire cast. If urine and stool are allowed to get on or into the cast, they will develop a very foul odor. It will also make the skin under that part of the cast more prone to break-down. For these reasons, nurses take great precautions to keep casts dry. Some of these methods are discussed on pages 322-323 in your text. You may want to review these pages.

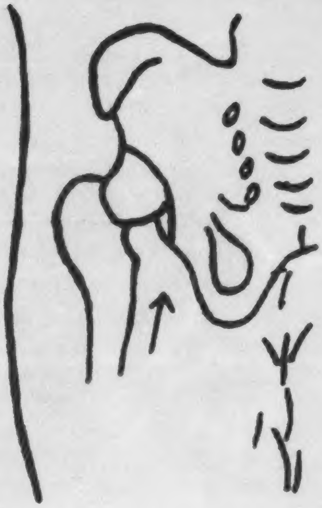
Additional problems that anyone in a cast is prone to are urinary statis, constipation, and pressure sores from lying in bed. These can be alleviated by increasing fluid and roughage in the diet and by frequent turning and repositioning.

LEARNING ACTIVITIES - continued

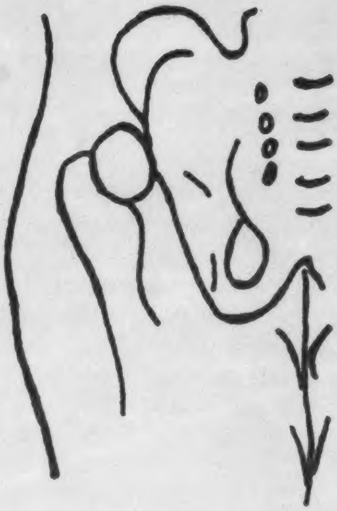
CONGENITAL ORTHOPEDIC ANOMALIES



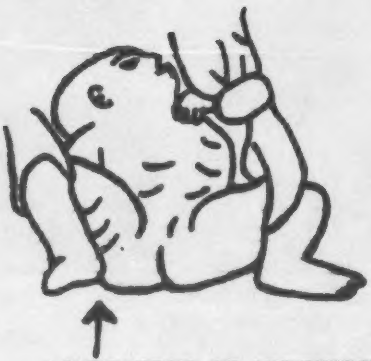
NORMAL HIP JOINT



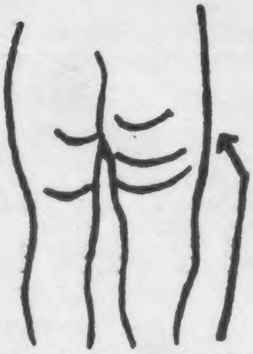
SUBLUXATED HIP JOINT



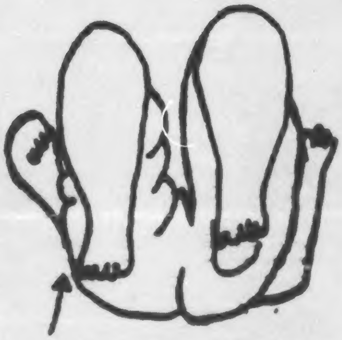
DISLOCATED HIP JOINT



LIMITATION OF ABDUCTION
in a Dislocated Hip Joint

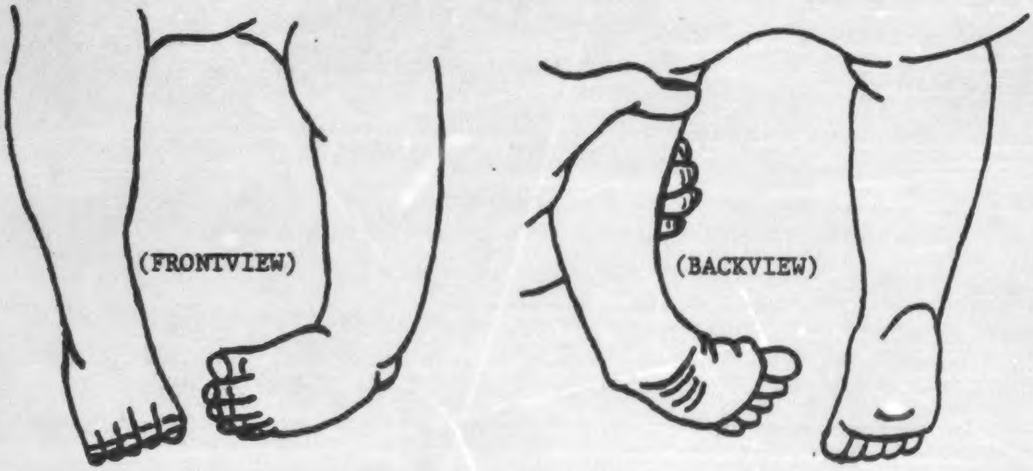


ASYMMETRY OF SKIN FOLDS
PROMINENCE OF TROCHANTER
in a Dislocated Hip Joint



SHORTENING OF FEMUR
in a Dislocated Hip
Joint

LEARNING ACTIVITIES - continued



Unilateral Clubfoot (Talipes Equinovarus)

Review Exercise

Directions: To help you remember what you have just learned, complete this exercise.

1. Define the following terms.

   a. Talipes equinovarus - ______________________________

   ____

   b. Dennis Browne splint - ______________________________

   ____

   c. Congenital hip dislocation - ______________________________

   ____

   d. Frejka splint - ______________________________

   ____

   e. Acetabulum - ______________________________

   ____

2. What is serial casting and why is it sometimes used in treatment of clubfoot?

   ____

   ____

LEARNING ACTIVITIES - continued

3. Describe nursing of the patient in a hip spica cast.

4. What position are the legs placed in to correct congenital hip dislocation?

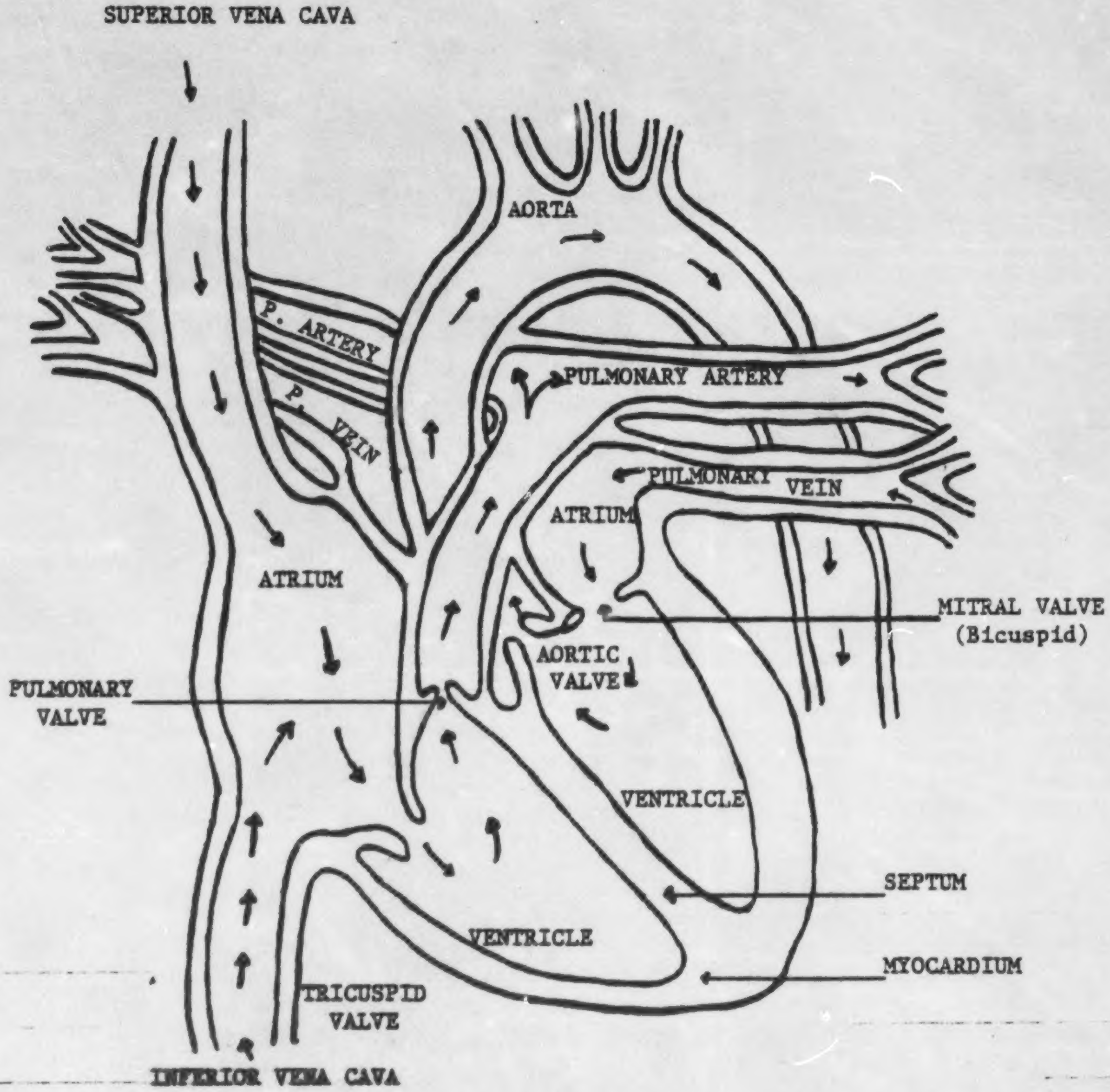
5. Why do clubfoot and hip dislocation need correction?

6. How would you go about keeping a hip spica cast on an eight-month-old girl dry?

ACTIVITY #9. The Child With Congenital Heart Disease

Directions: Study the diagrams of a normal heart and of maternal and fetal circulation on the following pages and then read the information. Also read your text Pediatric Nursing by Marlow, Chapter 12, pages 279-293.

LEARNING ACTIVITIES - continued


SUPERIOR VENA CAVA
AORTA
P. ARTERY
P. VEIN
PULMONARY ARTERY
PULMONARY VEIN
ATRIUM
ATRIUM
MITRAL VALVE (Bicuspid)
AORTIC VALVE
PULMONARY VALVE
VENTRICLE
SEPTUM
VENTRICLE
MYOCARDIUM
TRICUSPID VALVE
INFERIOR VENA CAVA

RIGHT HEART

Receives blood from the body and pumps it to the lungs.

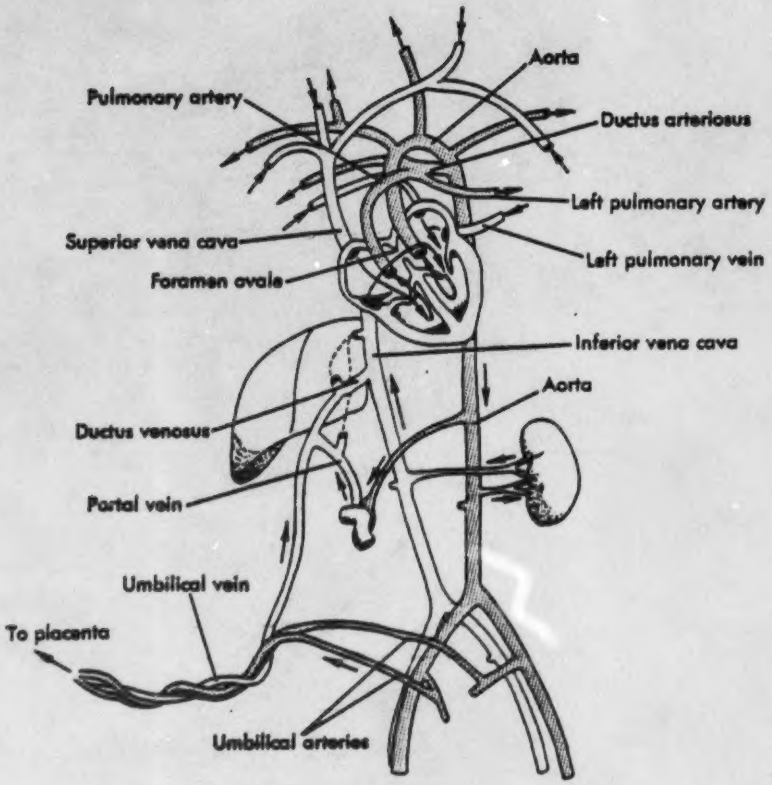
LEFT HEART

Receives oxygen-full blood from the lungs and pumps it through the systemic circulation.

THE HEART

LEARNING ACTIVITIES - continued

MATERNAL AND FETAL CIRCULATION


Aorta
Pulmonary artery
Ductus arteriosus
Left pulmonary artery
Superior vena cava
Left pulmonary vein
Foramen ovale
Inferior vena cava
Aorta
Ductus venosus
Portal vein
Umbilical vein
To placenta
Umbilical arteries

LEARNING ACTIVITIES - continued

Fetal Circulation

Circulation in the body before birth differs from the circulation in the body after birth. The unborn infant secures oxygen and food from the mother's blood instead of using its own lungs and digestive system. The interchange of gases, food, and wastes takes place in the placenta. The bulk of blood bypasses the lungs by means of two structures which shunt the blood from the right side to the left side of the heart. An opening between the two atria (the foramen ovale) and a vessel connecting the pulmonary artery with the aorta, (the ductus arteriosus) provide these short cuts. Normally, with the first few respirations of the newborn child the lungs are expanded. The foramen ovale then closes and the ductus arteriosus becomes obliterated. Sometimes these circulatory adjustments do not take place resulting in congenital anomalies.

Congenital Heart Disease

One or several anomalies may result from the maldevelopment of the heart or great blood vessels leading to and from the heart. Such defects may be hereditary or may be caused by a number of things, including vitamin deficiencies or viral infections such as German measles occurring during the first trimester of pregnancy.

Diagnosis: A diagnosis may be arrived at by history and a physical examination of the child plus the use of a wide range of diagnostic studies. The usual signs and symptoms of congenital heart disease include abnormal murmurs, varying degrees of dyspnea and cyanosis, elevated pulse rate, failure to gain weight, feeding difficulties, choking spells, and fatigue.

The following technical procedures may be used:

Fluoroscopy: The action, size, and position of the heart can be observed under a fluoroscopic x-ray screen.

Electrocardiography: Tracings of the heart action are made and analyzed to assess the activity of the ventricles and the health of the heart muscle itself.

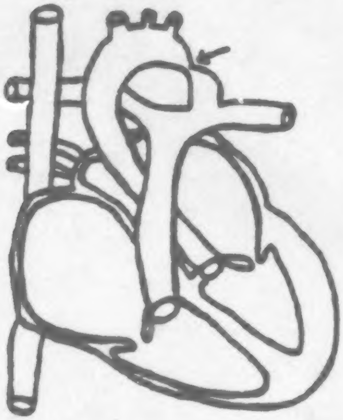
Cardiac catheterization: While the child is sedated, a radiopathic catheter is passed through the vein into the right atria, right ventricle and pulmonary artery. Pressure is measured and blood samples taken in each location which are then analyzed for oxygen content.

Aortography: To outline the aorta and the branching of the left subclavian artery, a radiopaque substance is injected into the right brachial artery in a retrograde fashion and x-rays are taken.

Angiocardiography: A study is made of the actual course of blood through the heart and great vessels. Radiopaque material is injected into the vein and its course followed by serial x-rays. It is necessary to anesthetize the child to maintain the proper position.

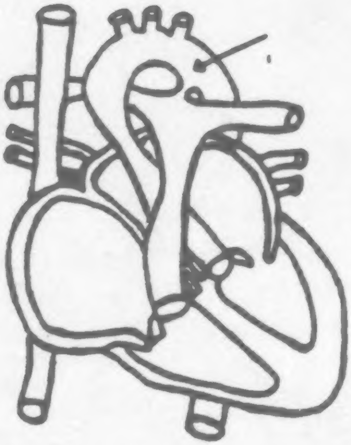
LEARNING ACTIVITIES - continued

TYPES OF CONGENITAL HEART DISEASE



Coarctation of the Aorta

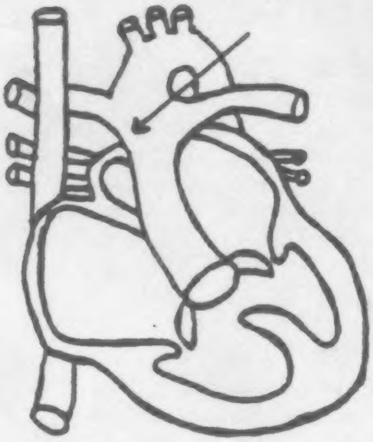
A constriction or narrowing of the aorta may limit the amount of blood that is carried to the areas of the body beyond the constriction causing an increased left ventricular pressure and work load. The condition may be asymptomatic in the early years but growth may be slow and the child may complain of weakness in the legs and fatigue. Elevation of blood pressure in the upper extremities may result in dizziness and headaches. Blood pressure in the legs is below normal and the child may complain of numbness. Bounding radical pulse and weak femoral. Surgical removal of the narrowed portion is followed by anastomosis of the two ends; if the segment to be removed is a large one, a blood vessel graft may be necessary. If there are no other defects, a complete cure will be affected.



Patent Ductus Arteriosus

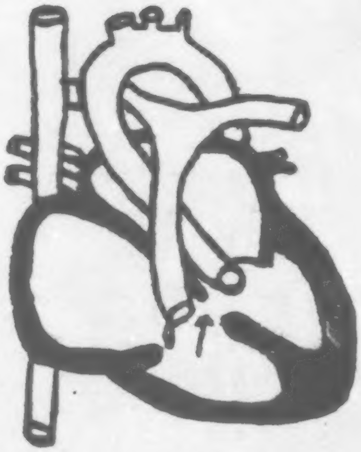
The patent ductus arteriosus is a vascular connection that, during fetal life, short circuits the pulmonary vascular bed and directs blood from the pulmonary artery to the aorta. Functional closure of the ductus normally occurs soon after birth. If the ductus remains patent after birth, the direction of blood flow in the ductus is reversed by the higher pressure in the aorta. As a result, oxygenated blood recirculates through the pulmonary circulation, decreasing the amount sent to the rest of the body. In order to pump sufficient blood through the body, the heart must work harder. The symptoms of patent ductus are usually slight in infancy but as the child grows older and becomes more active, the characteristic symptoms appear. The child is likely to show progressive dyspnea on exertion, failure to thrive, and congestive heart failure may result. The heart becomes enlarged. Surgery is performed to tie both ends of the ductus. Following surgery, the cirulatory pattern is normal.

LEARNING ACTIVITIES - continued



Truncus arteriosus is an inoperable congenital heart defect in which the pulmonary artery and the aorta are joined into one large vessel which carries both oxygenated and unoxygenated blood from the heart. The presence of a ventricular septal defect makes this possible. Prognosis is poor.

Truncus Arteriosus



A ventricular septal defect is an abnormal opening between the right and left ventricle. Ventricular septal defects vary in size and may occur in either the membranous or muscular portion of the ventricular septum. Due to higher pressure in the left ventricle, a shunting of blood from the left to right ventricle occurs during systole. If pulmonary vascular resistance produces pulmonary hypertension, the shunt of blood is then reversed from the right to the left ventricle, with cyanosis resulting.

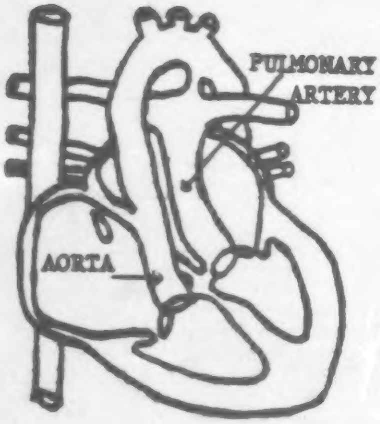
Ventricular Septal Defects

LEARNING ACTIVITIES - continued

Atrial Septal Defects

An atrial septal defect is an abnormal opening between the right and left atria. Basically, three types of abnormalities result from incorrect development of the atrial septum. An incompetent foramen ovale is the most common defect. The high ostium secundum defect results from abnormal development of the septum primum and produces a nasal opening known as an ostium primum defect, frequently involving the atrioventricular valves. In general, left to right shunting of blood occurs in all atrial septal defects.

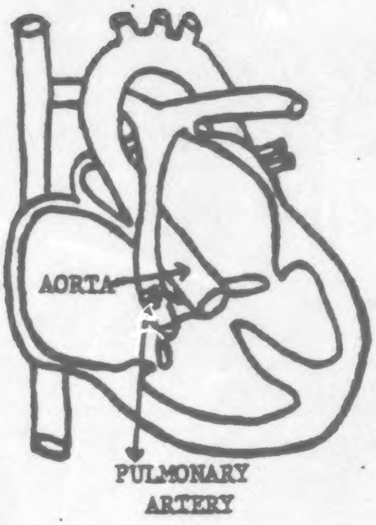
Failure of the foramen ovale to close following birth may result in an atrial septal defect. Since oxygenated blood in the left atrium is under the higher pressure, it is forced through the defect in the wall of the right atrium. The diagnosis is made on the basis of x-ray and cardiac catheterization. The heart becomes enlarged and congestive heart failure may occur. A loud murmur is heard. The treatment is surgical repair of the defect done with the aid of the heart-lung machine. The hole is either sewn together or patched. Prognosis is good following correction.



Complete Transposition of the Great Vessels

This congenital cardiac anomaly essentially results in the development of two separate circulatory cycles — one which returns deoxygenated blood to the systemic circulation through the aorta, which is attached to the right ventricle instead of the left, and another which returns oxygenated blood to the left ventricle. To permit the blood to mix, the foramen ovale can be enlarged nonsurgically through balloon septostomy. This is palliative until the child is old enough to undergo an open heart procedure to create a baffle in the septum. The care of these children requires careful hydration, protection from respiratory illness, prompt treatment of hypoxic spells, and provision for maximum rest.

LEARNING ACTIVITIES - continued



Tetralogy of Fallot

Named for Etienne Fallot, a French physician, this condition has four associated anomalies: (1) stenosis of the pulmonary artery; (2) ventricular septal defect; (3) hypertrophy of the right ventricle; and (4) dextro position of the aorta. As a result of these defects, unoxygenated blood mixes with the arterial or oxygenated blood in the aorta; and cyanosis is manifest. The skin has a bluish tint, the fingers and toes become clubbed and have a purplish hue. The child's growth is retarded; exercise causes severe dyspnea. In order to relieve the strain of standing, the child prefers a squatting position which is diagnostic. The poor blood supply to the brain may cause retardation, fainting and convulsions. The child is apt to be emotionally unstable, irritable and overdependent upon others and learns to limit activity because of dyspnea and fatigue. This is the most common defect causing cyanosis in patients surviving beyond two years of age. The severity of symptoms depends on the degree of pulmonary stenosis, the size of the ventricular septal defect, and the degree to which the aorta overrides the septal defect. Corrective surgery is being undertaken quite frequently. With the use of the heart-lung machine, it is possible to resect the pulmonic stenosis and close the ventricular septal defect. The risk of such surgery is high but without operative procedure the child's life expectancy is greatly shortened.

General Signs and Symptoms of Congenital Heart Abnormalities in Infants

1. Dyspnea
2. Difficulty with feeding
3. Stridor or choking spells
4. Pulse rate over 200
5. Recurrent respiratory infections
6. Failure to gain weight
7. Heart murmurs
8. Cyanosis
9. Cerebral vascular accidents
10. Anoxic attacks

LEARNING ACTIVITIES - continued

General Signs and Symptoms of Congenital Heart Abnormalities in Children

1. Dyspnea
2. Poor physical development
3. Decreased exercise tolerance
4. Recurrent respiratory infections
5. Heart murmur and thrill
6. Cyanosis
7. Squatting
8. Clubbing of fingers and toes
9. Elevated blood pressure

Treatment and Nursing Care

Of primary importance in the care of the infant or child with heart disease is the close observation of the patient. Any change in condition may be significant and should be reported immediately. Danger signals to be noted are increasing dyspnea which may be indicated by flaring of the nostrils or substernal retraction in the infant. Also, increasing cyanosis, tachycardia, and rapid, shallow respirations are signs of increasing difficulty.

These children fatigue easily and quickly; thus they require long periods of rest. Nursing care should be organized so that it can be accomplished quickly and with the least exertion possible to the child. Limitation of activity is necessary as the child becomes older; however, many children learn to limit themselves to a great extent. Provision for normal growth and development and meeting the basic needs of the child is essential. Parents should be encouraged to let the child live a normal life within his limitation. The child should not be overprotected or acquire the feeling of undue importance which is apt to develop if she feels that her heart condition makes her a special child who must always have her own way. The experiences which develop the normal child, but in which this child cannot participate, should be replaced by experiences of comparable learning value.

The medications more commonly given to the child with a heart condition are digitalis preparations and antibiotics. Lanoxin elixir is frequently given to the small child in order to slow and strengthen the heartbeat. This must be given with extreme accuracy to avoid toxic reactions such as a slow or irregular pulse, vomiting and diarrhea. The apical pulse must be taken prior to the administration of the medication. Because pulse rates vary so with the age of the child, the physician will indicate the lower limits of safety for the individual child.

Antibiotics may be given either to prevent infection or to treat a specific infection. Children with congenital heart defects are particularly susceptible to respiratory infections.

LEARNING ACTIVITIES - continued

Oxygen therapy may be necessary either continuously or during intervals of dyspnea and cyanosis. Oxygen is generally administered by means of the croupette or isolette. The rate of oxygen flow is determined by the physician.

The cyanotic child must have a balanced level of hydration. If the child does not receive adequate fluids, his thick blood may clot causing a cerebral vascular accident. On the other hand, overhydration could result in congestive heart failure.

General objectives are to prevent physical and emotional fatigue, provide adequate fluid and nutrition, prevent infections, and help parents cope with the situation.

Open Heart Surgery

The child entering the hospital for open heart surgery finds the separation from her parents and the physical assault on her body extremely threatening. Any and all attempts at making the child and her family feel secure should be done. Preoperative teaching and visits to the intensive care units are imperative so parent and child are familiar with equipment and procedures. It is wise to carefully assess the child's understanding of what will happen and begin teaching from there. A child with a good general understanding of what will take place is likely to be more cooperative and less fearful; however, excessive detail is not helpful. Play therapy is valuable in allowing the child to work out her feelings.

After surgery, the child will be in the intensive care unit for several days — an anxious time for both parents and child as the patient seems lost under a maze of tubes, monitors, and equipment. The brief visits allowed should occur when the child is awake and not undergoing treatment.

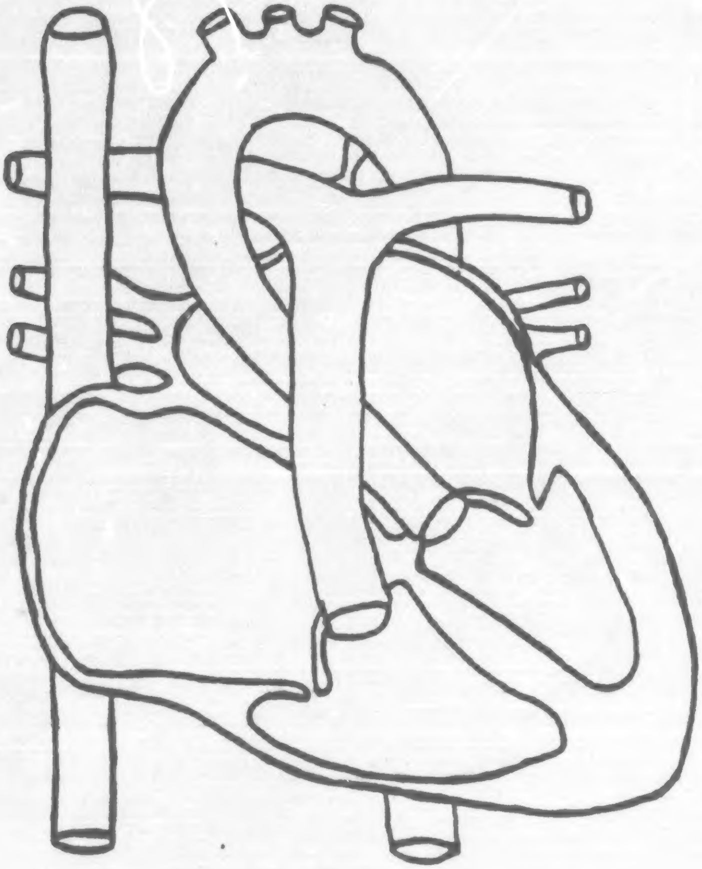
Intravenous fluids will be replaced by oral feedings shortly. Chest tubes will be removed when drainage ceases and after a few days the child will be returned to the regular pediatric unit.

Cure is the word often used in pediatric heart surgery. While the child initially will need additional rest, parents will have to readjust their manner of thinking about and handling their child as she now demands increasing freedom and independence.

LEARNING ACTIVITIES - continued

Directions: Complete the following exercises. The answers can be found by reviewing your material and assigned readings.

1. Label the parts of the normal heart by using the code given below.



AO — aorta
AV — aortic valve
IVC — inferior vena cava
LA — left atrium
LPA — left pulmonary artery
LV — left ventricle
MPA — main pulmonary artery
MV — mitral (bicuspid) valve

LDA — ligamentum ductus arteriosus
PV — pulmonary valve
P vein — pulmonary vein
RA — right atrium
RV — right ventricle
SVC — superior vena cava
TV — tricuspid valve

LEARNING ACTIVITIES - continued

2. List five (5) indications of cardiac difficulties in the infant.

   a. ______________________________

   b. ______________________________

   c. ______________________________

   d. ______________________________

   e. ______________________________

3. Less emphasis should be placed on limiting the activity of a toddler with a heart defect. Why? ______________________________

   ____

4. Write a brief description about the procedure for a cardiac catheterization.

   ____

   ____

   ____

5. Define foramen ovale. ______________________________

   ____

6. Define ductus venosus. ______________________________

   ____

7. Write a brief description about the pathology of ventricular septal defect.

   ____

   ____

8. Write a brief description about the pathology and treatment of patent ductus arteriosus. ______________________________

   ____

9. Write a brief description about the pathology and treatment of coarctation of the aorta. ______________________________

   ____

LEARNING ACTIVITIES - concluded

10. List the four (4) defects in Tetralogy of Fallot.

    a. ____________________

    b. ____________________

    c. ____________________

    d. ____________________

11. Write a brief description about the pathology of transposition of the great vessels. ____________________

    ____

12. Why would the cynotic child be prone to polycythemia? ____________________

    ____

13. The order reads to give 0.06 mg lanoxin to the child. One cc of the elixir contains 0.05 mg. You give ____________________ to the child.

14. Why is lanoxin given to the child with a congenital heart defect?

    ____

    ____

NURSING CARE OF CHILDREN

Module C - The Infant

RATIONALE

Understanding normal maturation and development as well as conditions of illness in the infant will provide a base from which adequate care can be given. When an infant becomes ill for even a short time, his well-being, both physical and emotional, is threatened. Thus, both infant and parents of the infant will look to the nurse to provide support and conscious care.

PERFORMANCE OBJECTIVES

To the instructor's satisfaction, you will:

1. Identify growth and development of the healthy infant.
2. Identify nursing needs of the infant.
3. Describe conditions commonly associated with the infant.
4. Describe nursing care appropriate to the conditions associated with the infant.

CLINICAL OBJECTIVES

In the clinical area and to the instructor's satisfaction, you will:

1. Differentiate the normal growing and developing infant with one who has problems in growth and development.
2. Assess the interaction between parents and the infant.
3. Formulate and execute a plan of nursing care appropriate for the infant's condition.

LEARNING ACTIVITIES

Directions: The material needed to complete this module is included in this section and in Marlow's Textbook of Pediatric Nursing, Chapters 12, 13, 14, 15, and 17. Exercises are included to help you to prepare for the test and for any unannounced quizzes that may be given. If you find words you do not understand, look in the terminology section of this unit or in a medical dictionary. If you have any questions, ask your instructor to assist you.

LEARNING ACTIVITIES - continued

ACTIVITY #1. Growth and Development of the Infant

Directions: Read your text by Marlow, Chapter 13, pages 162-163, 335-344, 346-356, 366-374, 379-382. Then read the following description of the growth and development of the infant from two to twelve months. This information relates to the normal, average infant and will vary from child to child.

I. Two Months
  A. Physical growth
    1. Posterior fontanel closed
    2. Tears appear
    3. Turns from side to back
    4. Holds head erect in midposition
    5. Lifts head and chest a short distance when placed on abdomen
    6. Can briefly hold rattle
  B. Visual development - follows moving light or object
  C. Social development
    1. "Social smile"
    2. Becomes aware that crying brings attention

II. Three Months
  A. Physical growth
    1. Stares at hands
    2. Plays with fingers and hands
    3. Reaches for objects but misses
    4. Holds head erect and steady
  B. Visual development
    1. Turns eyes to object in field of vision
    2. Blinks at objects threatening eyes

LEARNING ACTIVITIES - continued

- C. Social development
    - 1. Cries less
    - 2. Laughs aloud; smiles
    - 3. Enjoys social contact; listens to voice and coos

III. Four Months

- A. Physical growth
    - 1. Drooling indicates appearance of saliva, swallowing not yet learned
    - 2. Lifts head and shoulders at a 90° angle and looks around
    - 3. Symmetrical body posture predominates; hands at midline and open
    - 4. Enjoys sitting with adequate support
    - 5. Can turn from back to side
    - 6. When held erect, pushes with feet
- B. Visual development - follows moving objects well
- C. Social development
    - 1. Enjoys audience; may show displeasure if social contact is broken
    - 2. Excited at sight of food
    - 3. Sleeps through the night

IV. Five Months

- A. Physical growth
    - 1. Weighs twice birth weight
    - 2. Sits with slight support
    - 3. Grabs objects handed to him/her
    - 4. Has completely lost the Moro reflex
- B. Social development
    - 1. Talks to self
    - 2. Expresses displeasure when a desired object is taken away

LEARNING ACTIVITIES - continued

V. Six Months

  A. Physical growth

    1. Teething: Usually the lower incisor erupts first

      a. Teething may incite irritability and anorexia

      b. Teething may cause a temperature elevation or convulsions

    2. Sits momentarily without support

    3. Pulls to a sitting position

    4. Completely rolls over

    5. Bangs with object held in hand

    6. Springs up and down when sitting

  B. Social development

    1. Babbles; squeals

    2. Thrashes arms and legs when frustrated

    3. Cries easily

    4. Begins to recognize strangers

VI. Seven Months

  A. Physical growth

    1. Transfers objects from hand to hand

    2. Plays with feet

    3. Reaches out and grasps objects

    4. Bounces actively; may support most of own weight

    5. Sits briefly; leaning forward on hands

  B. Social development

    1. Fear of strangers

    2. Responds to change in emotional content of social contact

LEARNING ACTIVITIES - continued

3. Quick changes from crying to laughing
4. Prefers mother
5. Enjoys mirror
6. Vocalizes polysyllabic vowel sounds

VII. Eight Months

A. Physical growth

1. Sits alone steadily
2. Complete thumb apposition
3. Hand-eye coordination to point where random reaching no longer persists

B. Social development

1. Affection for family but not strangers
2. Stetches arms to loved ones

VIII. Nine Months

A. Physical growth

1. Holds own bottle with good hand-mouth coordination
2. Shows preference for one hand
3. Crawls. When crawling, the infant is prone, with abdomen touching the floor and head and shoulders supported with the weight borne on the elbows. The body is pulled along by the movement of the arms while the legs drag. The leg movements may resemble swimming or kicking movements.
4. Creeps. This is a more advanced type of locomotion than crawling. The trunk is carried above the floor, but parallel to it. The infant uses both hands and knees in propelling forward. Not all infants follow this pattern of crawling and creeping.
5. Raises self to a sitting position

LEARNING ACTIVITIES - continued

B. Social development

1. Cries when scolded
2. Shows beginning of imitative expression
3. Begins to form words such as "Da da", etc.

IX. Ten Months

A. Physical growth

1. Pulls self to standing position
2. Creeps and cruises well (Cruising is walking sideways while holding onto a supporting object with both hands.)
3. Grasps objects with thumb and forefinger; pokes at things with forefinger
4. Feeds self with finger foods
5. Crudely releases objects grasped by another person

B. Social development

1. Responds to sound of name
2. Plays peek-a-boo or pat-a-cake; waves bye-bye
3. Says one or two words and imitates adult's inflections

X. Twelve Months

A. Physical growth

1. Weighs three times birth weight (21-22 pounds)
2. Measures about 29 inches
3. Has about six teeth
4. Can stand a moment alone
5. Can walk with help
6. Can sit down from standing position without help
7. Can hold crayon adaptively and can mark on paper
8. Can drink from cup and eat from spoon but requires help
9. Cooperates in dressing; can take off socks

LEARNING ACTIVITIES - continued

B. Social development

1. Can say two words besides "Ma ma" and "Da da"

2. Uses expressive jargon

3. Exhibits simple acts on command; recognizes meaning of "No"

4. Shows jealousy, affection, anger, and other emotions

5. Slow vocabulary growth; more interested in motor skills

6. Stiffens in resistance

7. Loves an audience

ACTIVITY #2. Personality Development from Birth to One Year

Directions: Read the following information on personality development from birth to one year. This is an important period when an infant learns to trust or to mistrust.

I. Birth to One Year (Oral Period)

A. Purely biological needs center around the mouth.

B. Hunger relieved; therefore, anxiety relieved.

C. Interaction begins through cry of infant; cry occurs when needs are not met.

D. With early emphasis on talking, the infant is constant "receiver" of emotion.

E. Inability of infant to distinguish what is part of self and what is part of the external environment.

1. Gentle parent figure brings satisfied needs, brings decrease in anxiety, brings return to homeostasis.

2. Gradually infant learns to react to others after constant functioning on "pleasure principle". Needs must be immediately satisfied.

3. Sensitivity of parent's response to infant and parent's consistency in meeting needs determines child's capacity to relate to others throughout life.

F. Begins to differentiate self from outside world.

1. "Aggressive phase" begins when the child loves and hugs so strongly that biting others occurs

2. Begins to learn not all crying leads to a response; begins to deal with uncomfortable experiences

LEARNING ACTIVITIES - continued

3. Begins to gather feelings of self-esteem
4. Begins to gather feelings of trust
5. Begins to gather feelings of imitation of parent
6. Begins to gather feelings of perception of self and others

II. Adult Personality Traits Traceable to Oral Period

A. Infant who has received consistent satisfaction and security demonstrates this in adulthood by:

1. Being optimistic
2. Having a bright and social personality
3. Being generous
4. Being accessible to new ideas
5. Being tolerant of others

B. The infant who has been overindulged demonstrates this in adulthood by:

1. Expecting others to do for him/her what was done as an infant
2. Passive personality resulting in little achievement or accomplishment
3. Assuming kind people are everywhere and will care for her/him; therefore, worries about caring for oneself

C. The infant who has been frustrated in early life demonstrates this in adulthood by:

1. Becoming a clinging person
2. Becoming pleading and demanding of others
3. Impatience and lack of ambition
4. Dislike of being alone
5. Needing to talk to others; talking about a pleasure

ACTIVITY #3. Changes which Occur from Zero to Twelve Months

Directions: Study the chart on the followng page to give you an overview of the major changes that occur during the first year of life. Pages 341-382 of your textbook give you more depth information in all the areas mentioned in the chart and some additional areas.

CHANGES WHICH OCCUR ZERO TO TWELVE MONTHS

	0-3 Months	3-6 Months	6-9 Months	9-12 Months
Health Maintenance	Check-up every 4-6 wks. Begin immunizations - DPT, OPV starting 6 wks. to 2 mos. Measure head circ. Advice on all aspects of child care.	Check-ups to continue every 4-6 wks. DPT and OPV series at usual 4 mo. intervals. Continue measuring head circumference.	Check-ups now every 2-3 mos. Initial DPT and OPV series complete. Continue measuring head circumference.	Check-ups at 9 and 12 mos. End of measuring head circumference.
Feeding	Bottle or breast. Vitamin iron supplement may be added. Solids may start early as 2 wks. or late as 4 mos. First solid rice cereal then veg. or fruit. One new food per week and no citrus, whole eggs or wheat products.	Continue bottle or breast. Often weaned from breast to bottle, add meats to diet. Continue to avoid citrus, eggs and wheat. May have egg yolk. May begin soft finger foods. May begin sitting in high chair and introduce cup.	May be weaned from breast to bottle or cup. Done gradually as baby ready. No longer need to sterilize. May begin soft table foods. May add whole egg and citrus in small quantities.	May be weaned entirely to cup. More table foods and finger foods added. May try wheat products now.
Clothing	Diapers - cloth or disposable. Otherwise, dress for weather. Don't over-dress or keep too warm. Loose and comfortable.	Same. Allow plenty of room for growth and movement.	Same. Baby will begin to crawl and knees need protection. May wear shoes and socks.	Provide for outdoor play and crawling and walking. Needs shoes and socks - ample room but good fit.
Sleeping Sleeps most of day when not eating.	Preferably in own room after first few weeks. Crib, bassinet, box ok as long as there is a firm mattress and adequate room. 18 hrs. day.	In own room in crib with side rails up. By 6 mos. starting to pull on rail. Begins to have more awake time. 16 hrs./day.	Same. May need to lower crib mattress because baby may begin to stand up in crib. May give up a.m. nap. 15 hrs./day.	Same. Afternoon nap is the only daytime sleep. 14 hrs./day.
Safety	May scoot off a bed (sides). Begins to put things in mouth. Don't use pillow.	May roll both ways. Puts everything in mouth.	Moves all over. Crawls all over. Pulls to standing. Still puts things in mouth.	Can get into anything now. Most things still go in mouth. Begins imitating.

LEARNING ACTIVITIES - continued

ACTIVITY #4. Review What You Have Just Read

Directions: Answer the following statements in your own words and check your answers with the material you have just read on growth and development. If you have questions on growth and development of the infant, see your instructor before continuing to the next activity.

1. Define the term "deciduous" and describe the eruption pattern for teeth.

   ____

   ____

   ____

2. Write a brief description about infant nutrition; i.e., what, when, and how to feed. Include your rationale.

   ____

   ____

   ____

   ____

   ____

3. What is the most common nutritional deficiency in infants? ____________

   ____

4. When should the infant be weaned from the bottle or breast? ____________

   ____

5. List the seven (7) infectious diseases which all infants should be protected against.

   a. ____________ e. ____________

   b. ____________ f. ____________

   c. ____________ g. ____________

   d. ____________

6. According to Erikson, what is the developmental task the infant must learn?

   ____

   ____

LEARNING ACTIVITIES - continued

7. How far should a rectal thermometer be inserted in the infant? ____________

8. Why would you hesitate to use baby powder on the infant? ________________

____

ACTIVITY #5. Respiratory Conditions of the Infant

Directions: Read your book Textbook of Pediatric Nursing, Chapter 14, pages 395-404; Chapter 17, pages 538-548; Chapter 15, pages 444-452, 541, 545, and Chapter 20, pages 649-652. After you have finished, continue with this activity.

I. Common Cold (Acute Nasopharyngitis)

A. Cause

Filterable virus

B. Incidence

Preschool ages 2-6. This age group tends to have more colds. Contributing factors include:

1. Number of children in the family
2. Number of children with whom the child comes in contact
3. Immature immune system

C. Symptoms

1. Onset is very dramatic.
   a. Well in the morning
   b. By the afternoon may be very irritable
2. Elevated T.P.R., young children 1-3 may have fever as high as 104°.
3. Infants usually have some vomiting and moderate diarrhea.
4. Babies are irritable and have difficulty in nursing due to nasal congestion.
5. The older child may have a low-grade fever, but seldom does the fever exceed 102°.
6. The older child may complain of feeling chilly, aching muscles, loss of appetite, and headache prior to the first nasal discharge.

LEARNING ACTIVITIES - continued

7. Nasal congestion and sore throat are routine symptoms after the common cold is established.

D. Communicable period

The infective period seems to be several hours before the onset of symptoms to 48 hours after symptoms appear.

E. Purulent stage

The purulent stage of the comon cold is believed to be due to secondary bacterial invasion (i.e., strep, flu, pneumococcus).

F. Complications which occur in young children

1. Middle ear involvement; mastoiditis -- if infection continues
2. Bronchitis
3. Pneumonia

G. Nursing care and treatment

No effective cure. Symptomatic care provides relief and prevents complications.

1. Bedrest while fever is present and for 48 hours after the patient is afebrile.
2. The antipyretic of the doctor's choice and in the dose prescribed should be faithfully administered to reduce high fever and to relieve the aching muscles.
3. A liquid solution of nose drops should be placed in the nostril in the correct amount, time, and position.
    a. Oily solution of nose drops can cause lipoid pneumonia and are not used in pediatric medicine.
    b. Instillations of nose drops to infants should precede the feeding by 10 to 15 minutes so that the infants will be able to suck.
4. High humidity may be ordered and assists in keeping patients comfortable.
5. Force fluids. Drug elimination, dehydration, etc.
6. Be alert for changes in respirations.
7. Note frequency of the cough and the characteristics of the cough.
8. Position the patient to reduce interference with respiration.

LEARNING ACTIVITIES - continued

II. Tonsillitis

A. Cause

Invasion of the tonsillar tissue by an infective agent, bacterial or non-bacterial.

B. Incidence

The condition is quite common in children beyond the age of infancy.

C. Types of tonsillitis

1. Acute tonsillitis. Acute tonsillitis is an inflammation of the tonsils and the throat.

   a. Symptoms

      (1) Fever

      (2) Difficulty in swallowing

   b. Nursing care and treatment

      (1) Bedrest

      (2) Adequate fluid intake

      (3) Soft diet

      (4) Aspirin may be ordered by the doctor

      (5) Antibiotic as ordered

      (6) Throat irrigations may be ordered

   c. Complications

      (1) Cervical abscess

      (2) Peritonsillar abscess (Quinsey)

      (3) Meningitis

2. Chronic tonsillitis. Chronic tonsillitis is characterized by repeated persistent attacks of sore throat.

   a. Symptoms

      (1) Chronic fatigue

LEARNING ACTIVITIES - continued

(2) Low-grade fever

(3) Failure to gain weight

b. Treatment

Tonsillectomy if chemotherapy fails

(1) Antibiotic of the doctor's choice is given pre- and postoperatively if there has been a recent acute infection.

(2) Postoperative care

(a) Watch for hemorrhage — packing or ligation of bleeder

(b) Prevent aspiration — position on abdomen, head to the side

(c) Do not allow child to blow nose

III. Bronchiolitis

A. Cause

Infection has spread to bronchial tubes.

B. Symptoms

1. Dry, nonproductive cough

2. May have a slight fever

3. May demonstrate cyanosis, dyspnea, vomiting, diarrhea, and/or wheezing

C. Nursing care and treatment

1. Notify doctor about type of cough

2. If cough becomes productive, report to the doctor

3. Bedrest

4. Give cool mist or steam inhalations, expectorant-type cough syrup, and antibiotics

D. Complication

A typical pneumonia. (If infant is coughing frequently without fever, report to the doctor. A typical pneumonia may be developing.)

LEARNING ACTIVITIES - continued

IV. Croup (Spasmodic Laryngitis)

A. Cause

Infectious disease that attacks the larynx, causing a spasm of the larynx. May also be of allergic origin.

B. Symptoms

1. Hoarseness
2. Dyspnea
3. Fever but rarely above 101°
4. Noisy inspiration, hard croupy cough — barking
5. Dysphagia

C. Nursing care and treatment

1. Humidity (use shower room in the home or cool mist vaporizor).
2. May need to be held during coughing spasm. May struggle for breath.
3. Watch for signs of cyanosis or change in respirations.
4. Loss of speech or inability to cry should be reported immediately.
5. Increased or decreased pulse rate should be reported.
6. Tracheotomy may need to be performed; tracheotomy set should be available.
7. Continuous and very close observation.

V. Pneumonia

A. Cause

Pneumonia in the infant age group is most commonly caused by the pneumococcus and/or by the staphlococcus.

B. Symptoms

1. Fever
2. Vomiting
3. Rapid pulse
4. Rapid labored respirations

LEARNING ACTIVITIES - continued

5. Cough

6. Diarrhea

C. Nursing care and treatment

1. Any sign of respiratory embarrassment or change in respirations must be noted and reported.

2. Change position frequently

3. Provide humidified oxygen

4. Antibiotics as ordered

5. Occasional tracheotomy

D. Complications

1. Empyema

2. Respiratory arrest

3. Cardiac failure

VI. Otitis Media (Middle Ear Infection)

A. Causes

Danger of a middle ear infection each time there is an infection of the upper respiratory tract. Eustachian tube connects the nasopharynx with the middle ear. Any infection near the opening of the eustachian tube has direct access to the middle ear. The tube is shorter and wider in children than in adults.

B. Incidence

Most common in infancy because the eustachian tube is shorter, wider, straighter, and may be more collapsible than in the older child. A contributing factor is that the infant lies flat in bed during the greater part of the day, and infected material is carried more readily through the tube. In older children, infected adenoid tissue around the opening of the eustachian tube may be responsible for recurring otitis media. Allergy may also be involved in recurrent otitis media.

C. Symptoms

1. Pulls at infected ear, rubs ear, or moves head from side to side, or shows no discomfort.

2. Fever of 104° and chills in the older child.

3. Anorexia and vomiting.

LEARNING ACTIVITIES - continued

4. Cries without provocation; may cry and scream constantly.

5. As the pressure increases in the middle ear, pain intensifies and ear drum bulges outward.

6. Inflammation of the nasopharynx.

D. Complications

1. Rare complications may result from insufficient therapy.

2. Types include chronic otitis media, mastoiditis, meningitis, brain abscess, lateral sinus, thrombo phlebitis, or thrombosis and septicemia.

3. Chronic condition with perforated eardrum may lead to impaired hearing or deafness of the affected ear.

E. Nursing care and treatments

1. Antibiotics as ordered

2. Nose drop as prescribed by the physician, properly instilled

3. Local heat to affected ear

4. Cleanliness of the ear canal

5. Observation for complications

6. Myringotomy

VII. Foreign Bodies

A. Cause

Foreign bodies in the nose are common. Items such as cherry stones, buttons, beans, and various seeds are placed in the nostrils by children.

1. Symptoms

a. Difficulty breathing through the nostrils

b. Picking at the nose

2. Treatment

a. If the situation is immediately discovered, the foreign body may be dislodged by having the child blow out through the nostrils.

b. If the foreign body has been in the nose for some time, the physician usually applies a local anesthetic and removes the foreign body.

LEARNING ACTIVITIES - continued

B. Cause

Foreign bodies in the larynx, trachea, and bronchi

1. Symptoms

   a. Wheezing

   b. Choking

   c. Gagging

   d. Coughing

   e. Dyspnea

   f. Cyanosis

2. Treatment

   a. Emergency care includes holding the child upside down and slapping him/her vigorously on the back.

   b. Rush immediately to the doctor for help.

   c. Call ahead. Doctor can be prepared.

VIII. Acute Laryngotracheobronchitis

A. Cause

Usually of viral origin, but bacterial invasion may follow original infection. May progress rapidly to become a life-threatening emergency. There is an acute inflammation and edema of the mucus membrane of the larynx, trachea, and bronchi. A purulent exudate which produces crust may be present. If these accumulate, they may obstruct the air passage.

B. Incidence

Greatest during the first 3-4 years of life

C. Symptoms

1. Hoarseness and barking cough

2. Possible fever of 104° to 105°

3. Dyspnea, dysphagia, drooling, and restlessness

LEARNING ACTIVITIES - continued

D. Nursing care and treatment

1. Close observation for congestive heart failure and acute respiratory distress

2. Humidity to liquify secretion

3. Antibiotics to control infection

4. Tracheotomy set available for emergency use

5. 0_2 if needed

VIX. Acute Epiglottitis

A. Cause

Severe, rapidly progressive infection of the epiglottis and surrounding areas caused by Hemophilus influenzae B, pneumococci 1, group "A" Streptococci, or viruses. Most frequently in young children.

B. Symptoms

1. Slight upper respiratory tract infection

2. Acute and severe respiratory distress

   a. Inspiratory stridor

   b. Retractions

   c. Cough

   d. Muffled voice

   e. Dysphagia

   f. Drooling

   g. Restlessness

3. Fever of 100° to 105° F

4. Holds neck in hyperextended position

Caution: If the child is sitting semi-upright and is breathing with the lower jaw somewhat protruding, do not attempt to check the child's throat as this may cause enough trauma to occlude the airway completely.

LEARNING ACTIVITIES - continued

C. Nursing care and treatment

1. Close observation for congestive heart failure and acute respiratory distress
2. Humidity to liquify secretion
3. Antibiotics to control infection
4. Tracheotomy set available for emergency use
5. O_2 if needed

ACIVITY #6. Tracheostomy

Directions: Review Care of the Child in your textbook, pages 541-545. After you have read these pages, continue with this activity.

Occasionally, respiratory diseases in children become severe enough to require a tracheostomy. Tracheostomy is an incision into the trachea. An incision is made in order to open up a passage for air to enter the trachea proximal to the site of laryngeal obstruction.

Indications for Tracheostomy in Children

1. Substantially blocked upper airway as may occur with croup.
2. The need to have access to lower air passages to suction out mucus.
3. The need to provide ventilatory assistance as may occur with any severe respiratory disorder.

Important Points to Remember

1. Tracheostomies are suctioned when necessary and not always according to a schedule.
2. Tracheostomies are cleaned frequently to prevent the introduction of organisms into the lungs.
3. Tracheostomies are suctioned, cleaned and otherwise handled using aseptic technique in the hospital.
4. If the tracheostomy is the only way the baby breathes, it must not be pulled out. Use restraints as necessary.
5. Babies with fat chins may obstruct the tracheal opening if their necks are not kept hyperextended.
6. Observations of such danger signals are restlessness, extreme fatigue, dyspnea, cyanosis or pallor, fever, rapid pulse, retractions, and noisy respirations.

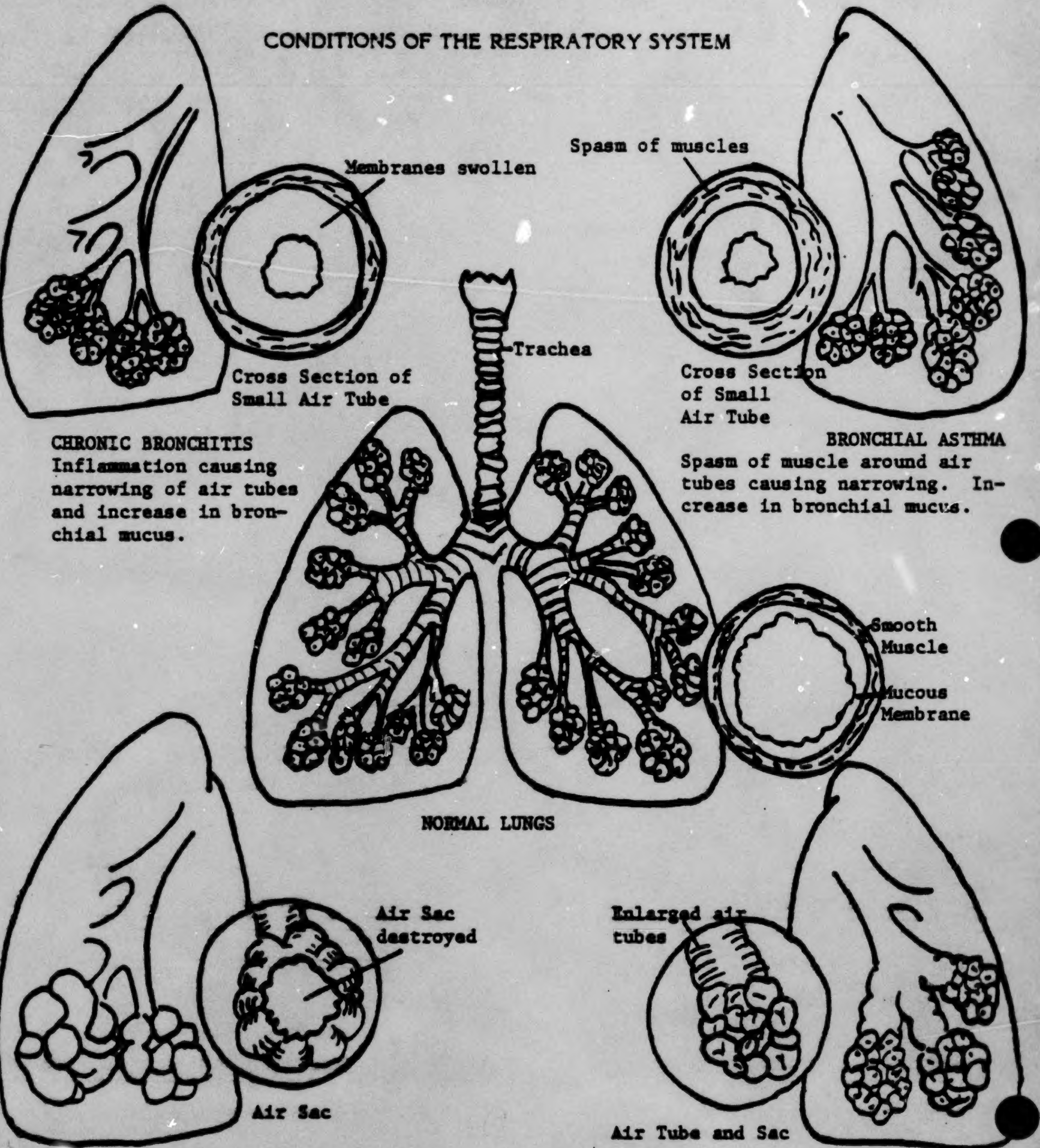
LEARNING ACTIVITIES - continued

ACTIVITY #7. Respiratory Conditions: A Visual Look

Directions: Now that you read about the various respiratory conditions, you are ready to see the alveoli changes which occur in these conditions. Study the diagram on the next page which will show you how the alveoli change in various conditions of the respiratory system.

LEARNING ACTIVITIES - continued

CONDITIONS OF THE RESPIRATORY SYSTEM


Membranes swollen
Cross Section of Small Air Tube
Spasm of muscles
Cross Section of Small Air Tube
Trachea
Smooth Muscle
Mucous Membrane
NORMAL LUNGS
Air Sac destroyed
Air Sac
Enlarged air tubes
Air Tube and Sac

CHRONIC BRONCHITIS
Inflammation causing narrowing of air tubes and increase in bronchial mucus.

BRONCHIAL ASTHMA
Spasm of muscle around air tubes causing narrowing. Increase in bronchial mucus.

EMPHYSEMA
Enlarged and destroyed air sacs causing big air spaces in the lung tissue.

BRONCHIECTASIS
Widening and irregularity of small air tubes.

LEARNING ACTIVITIES - continued

ACTIVITY #8. Cystic Fibrosis

Directions: Read Marlow, Chapter 15, pages 444-452. Then read the following information.

I. Cystic Fibrosis

A. Incidence

Cystic fibrosis is an inherited disease. For an infant to have this disease both parents must be carriers. The defective gene occurs in approximately 5% of the population. About one child in every 1500 to 2000 born will have cystic fibrosis. Both sexes are equally affected. Its incidence is highest in whites and rare in black infants.

B. Pathology

While the specific cause is unknown, it appears that the genetic defect of cystic fibrosis causes excess mucus production in the pancreas and in the respiratory tree. This blocks the release of pancreatic enzymes necessary for metabolism particularly of fats. It also causes very thick, tenacious mucus to accumulate in the lungs interfering with respirations.

An additional aspect of the disease still not understood is that children with cystic fibrosis excrete large amounts of sodium potassium and chloride through their skin in perspiration. This makes them more prone to heat prostration due to dehydration especially during the summer. Since this is the only known disease entity with this high sweat chloride aspect, we use this manifestation to diagnose cystic fibrosis.

C. Symptoms

1. In newborn - meconium ileus; heat prostration

2. Childhood

Gastrointestinal - resulting from pancreatic insufficiency

a. Malnutrition despite excessive appetite

b. Abdominal distention

c. Stools increase in number (bulky, greasy, foul smelling)

d. Milk allergy

e. Irritability

LEARNING ACTIVITIES - continued

Respiratory - air passages obstructed by thick, mucoid secretion

- a. Recurrent respiratory infection
- b. Chronic cough
- c. Thick tenacious mucus
- d. Develops barrel chest
- e. Clubbing of fingers and toes (obstructive lung disease, the right ventricle strained and hypertrophies)
- f. Low exercise tolerance

Additional problem areas are the sweat glands.

- a. Profuse diaphoresis
- b. Dehydration

D. Diagnosis

1. Absence of trypsin, lipase, amylase from duodenal contents.
2. Sweat test for sodium and chloride content, which is higher than normal in patients with cystic fibrosis. Sweat is obtained by iontophoresis.

E. Prognosis

Cystic fibrosis is a terminal illness. In years past, a child born with cystic fibrosis never saw adolescence. This is improving in that some are living to young adulthood, and with continued improvements in treatment, and good care, longevity should continue to improve.

F. Treatment

1. Nutritional - Gastrointestinal
    - a. Frequent small meals of high caloric value
    - b. Diet - high protein, low fat
    - c. Vitamin supplements
    - d. Oral pancreatic enzyme replacement
2. Sweat glands
    - a. Adequate hydration
    - b. Liberal amounts of salt

LEARNING ACTIVITIES - continued

3. Respiratory

    a. Avoid exposure to infection

    b. Keep immunizations up to date

    c. Exercise program to tolerance

    d. Provide humidified air

    e. Prophylactic antibiotics in some cases - early treatment of infection

    f. Digitalis and diuretics if evidence of cardiac failure

    g. Postural drainage and percussion (teach parents to do this). Postural drainage is one therapeutic measure to assist the child to remove thick mucus secretions from his/her lungs. Based on the principle that fluids run downhill, the patient is placed in various positions to ensure drainage of all lobes of the lungs. See the diagrams of the different positions for postural drainage in FIGURES I, II, and III found in this activity.

Postural Drainage

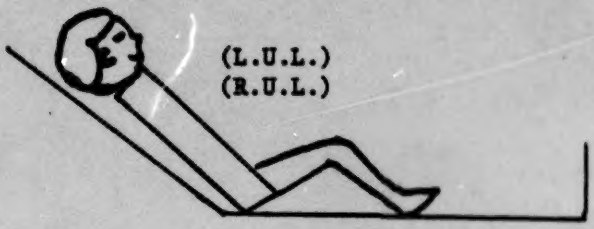
To cause the secretion to flow, the chest is first clapped with cupped hands and then vibrated as the patient blows out. Once the secretions are moved into larger airways, coughing is encouraged to blow them clear. The ability of a cough to remove secretions depends upon rate and volume of air flow through the bronchial tubes. These two factors are in turn dependent on efficient use of the muscles of respiration.

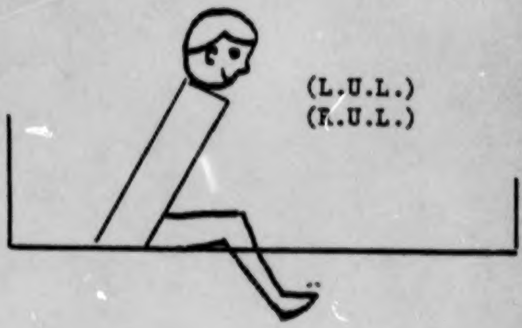
There is a difference of opinion as to whether postural drainage should be given before or after aerosol therapy. Those who advocate its use before aerosol feel this allows the aerosol to reach areas that were filled with secretions before drainage. Those who do postural drainage after aerosol therapy believe the aerosol opens up the pulmonary tree and improves drainage. The patient with excessive amounts of sputum probably benefits if drained both before and after aerosol therapy.

LEARNING ACTIVITIES - continued

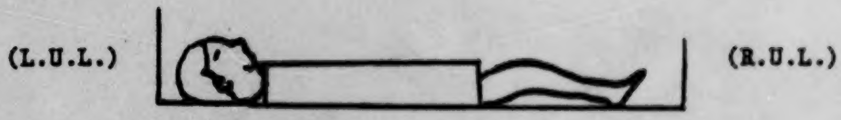
FIGURE I, FIGURE II, and FIGURE III depict the procedures to follow when postural drainage is given.

Upper Lobes Apical Segments





Anterior Segments



Supine - pillow under knees

FIGURE I

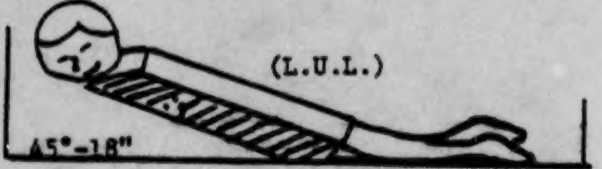
Postural Drainage

L.U.L. means left upper lobe of lung

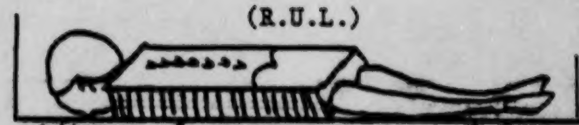
R.U.L. means right upper lobe of lung

LEARNING ACTIVITIES - continued

Posterior Segments

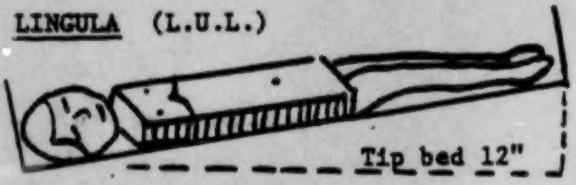


1/4 turn from prone, rest on right side. Head and shoulders raised, supported on pillows.



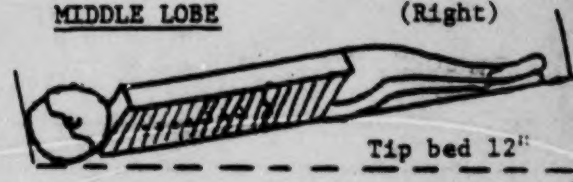
1/4 turn from prone, rest on left side. Support on pillows.

LINGULA (L.U.L.)



1/4 turn from supine - rest on right side. Support on pillows.

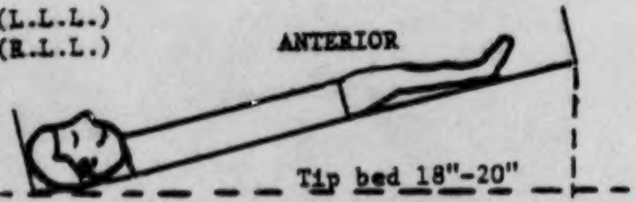
MIDDLE LOBE (Right)



1/4 turn from supine - rest on left side. Support on pillows.

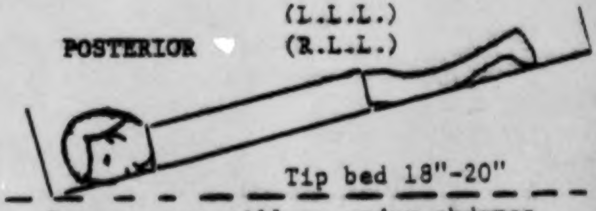
Lower Lobes Basal Segments

(L.L.L.)
(R.L.L.)
ANTERIOR


Tip bed 18"-20"

Supine - pillow under knees.

POSTERIOR
(L.L.L.)
(R.L.L.)


Tip bed 18"-20"

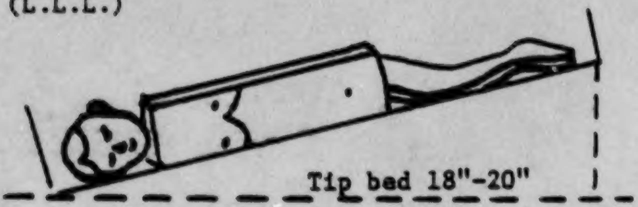
Prone - two pillows under abdomen

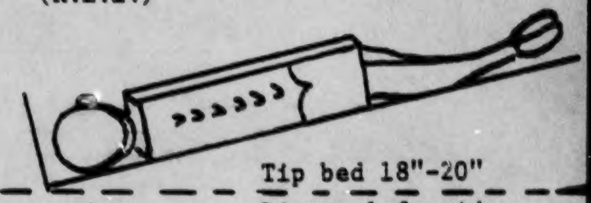
FIGURE II

Postural Drainage

LEARNING ACTIVITIES - continued

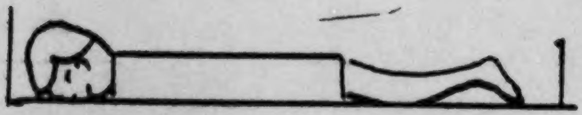
Lateral


(L.L.L.)
Tip bed 18"-20"


(R.L.L.)
Tip bed 18"-20"

Lie on right side. Pillow under waist to keep spine straight. Shoulders must not rest on head pillow. Lie on left side.

Superior Segments



Prone - pillow under abdomen to flatten back.

FIGURE III

Postural Drainage

LEARNING ACTIVITIES - continued

ACTIVITY #9. Review Exercise

Directions: Respond to the following statements in your own words. Check your answers by reviewing the material you have read.

1. Why should preparations like Neo-Synephrine be used no longer than two or three days in a row? (Review Module A 14-37).

2. Oil-based nose drops are never used in pediatrics. Why?

3. Should nose drops be given 10 to 15 minutes before feedings? Why or why not?

4. How does the eustachian tube differ in infants than in older children?

5. How is otitis media linked to bottle propping?

LEARNING ACTIVITIES - continued

6. Compare the procedure for instilling ear drops in an infant and in an older child. (Review Module A 14-36).

INFANT	OLDER CHILD

7. What observations are made by the nurse who is caring for a child with croup?

8. Why might a tracheostomy be needed in a child with croup?

9. How is otitis media related to upper respiratory infections in children?

10. What is the long-term problem associated with chronic otitis media?

LEARNING ACTIVITIES - continued

11. What should be done immediately if an infant aspirates a small bead?

12. What is the cause of cystic fibrosis?

13. Describe the gastrointestinal symptoms of cystic fibrosis.

14. Describe the respiratory symptoms of cystic fibrosis.

15. How is cystic fibrosis diagnosed?

16. Describe treatment of cystic fibrosis based on the three major manifestations - gastrointestinal, respiratory, and sweat gland function.

LEARNING ACTIVITIES - continued

ACTIVITY #10. Gastrointestinal Conditions of the Infant

Directions: Read your book, Textbook of Pediatric Nursing, Chapter 13, pages 371-372; Chapter 14, pages 419-426, Chapter 15, pages 452-454, and then read the following.

I. Colic

A. Pathology

Paroxysnal intestinal cramp

B. Incidence

Colic is one of the most common and most benign conditions affecting infants during the first 3 to 4 months. While it causes great turmoil in the child and family, it leaves no permanent physical damage.

C. Cause

1. Exact cause unknown
2. Excessive accumulation of intestinal flatus
    a. Excessive air swallowing
    b. Too rapid feeding
    c. Overfeeding
    d. Excessive intake of carbohydrate which fosters intestinal fermentation
    e. Emotional tension in infant

D. Symptoms

1. Passes large amounts of flatus with explosive force
2. Belches
3. Cries loudly
4. Draws up arms and legs and becomes red in the face
5. Abdomen hard

E. Treatment

1. Modification of formula
2. Careful infant feeding
3. Frequent bubbling when feeding

LEARNING ACTIVITIES - continued

4. Use of Carmenative (home remedy such as peppermint water or manzania or cammomilic tea which the Mexican culture use.)

5. Hot-water bottle to infant's abdomen

6. Placing infant on his/her abdomen to encourage expulsion of flatus. Use of antispasmodics, sedatives and tranquilizers. The lengthy list of theraputic measures provides evidence that no one treatment is successfull in all infants having colic.

F. Prognosis

Colic is not a serious condition, and infants often gain weight in spite of the periods of pain.

II. Hypertrophic Pyloric Stenosis

A. Incidence

Unknown; heredity may be a factor. Male infants more commonly affected than females, and is uncommon in Black infants. Symptoms rare after two months of age.

B. Pathology

Thickening of pyloric muscle at the outlet of the stomach; the hypertrophied muscle forms a tumor which can be the size of an olive. The tumor-like mass constricts the lumen of the pyloric canal. This impedes emptying of the stomach. Vomiting depletes the baby of fluids and electrolytes, and produces a metabolic alkalosis. If diagnosis is delayed, there is considerable weight loss and malnutrition. Refer to the diagram on the next page which shows a thickened pyloric muscle.

C. Signs and symptoms

Symptoms

1. Infant in good health begins to vomit.

2. At a later time, projectile vomiting begins. (Stenosis located above the common bile duct, emesis will not be tinged with green.)

Signs

1. Dehydration

2. Poor skin turgor

3. Distention of the epigastrum

4. Presence of abdominal peristaltic wave from left to right

LEARNING ACTIVITIES - continued

D. Diagnosis

Barium x-ray can be ordered but can be dangerous if the infant vomits and aspirates the barium into his/her lungs.

E. Treatment

1. Medical

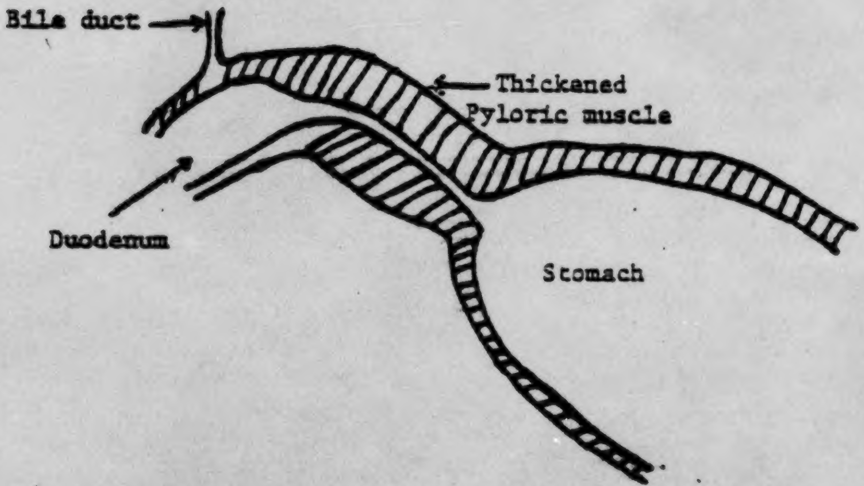
   a. Thickened or fine-curd milk feedings

   b. Antispasmodic drugs

2. Surgical

   Fredet - Ramstedt or pyloromyotomy

Enlarging Lumen of the Pyloris



   a. **Preoperatively**

      (1) **Feed slowly and bubble frequently**

      (2) **Handle gently after feeding**

      (3) **Place on right side with head of bed elevated**

      (4) **Administer parental fluids as ordered**

      (5) **Weigh daily**

      (6) **Reverse isolation**

LEARNING ACTIVITIES - continued

b. Postoperatively

(1) Administer parental fluids as ordered

(2) Lie on right side of abdomen (aid in digestion)

(3) Check for shock

(4) Check for abdominal distention

(5) When feeding started usually slowly progressive

(6) Care of incision

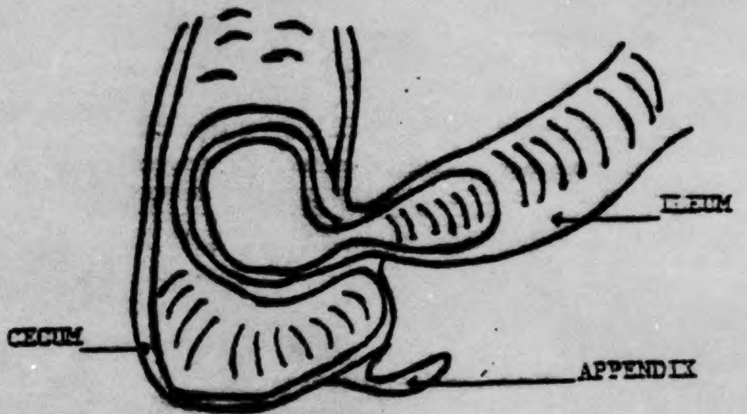
F. Prognosis

Excellent. Complete relief follows successful surgical repair.

III. Intussusception

A. Pathology

Intussusception is the slipping of one part of the intestine into another part just below it. Classified according to location, the majority of cases occur at the ileocecal valve. The mesentery is carried into the lumen of the intestine and the blood supply to the slipped portion of the bowel is cut off. Edema results. In some cases, reduction is spontaneous, but generally necrosis occurs at the site of intussusception. The strangulated portion may perforate, thereby causing peritonitis and death. See the diagram below which shows an ileo-colic intussusception.



Ileo-colic Intussusception

LEARNING ACTIVITIES - continued

B. Incidence

The greatest incidence occurs in male children who were previously healthy. Approximately 78% occur between ages 6 months to one year with most other cases occuring the second year.

C. Etiology

Questionable. Hyperperistalsis may be responsible, as might be the unusual mobility of the cecum and the ileum normally present in early life. Immediate causes may be diarrhea, constipation, polyps of the intestinal tract which act as a foreign body, or swelling of intestinal lymphatic tissue. Intussusception may occur around a Mechel's diverticulum.

D. Symptoms

1. Onset of sudden intestinal obstruction in healthy infant.
2. Tenesmus, paroxymal pain.
3. Vomiting - then later bilious emesis.
4. Normal to "currant jelly" (blood and mucus).
5. Sausage shape "tumor" may be visible in right or left upper quadrant.
6. Temperature of 106° - 108°.

E. Diagnosis

1. Sudden symptoms of intestinal obstruction.
2. Barium enema - which is often effective in reducing the telescoped bowel by hydrostatic pressure. When barium enema is successful, the infant will pass some stool.

F. Treatment

1. Preoperatively
    a. NPO
    b. Good hydration
    c. Deflation of stomach with NG tube
    d. Administer antibiotic as ordered
    e. Prepare for barium enema. If barium enema is unsuccessful in reducing intussusception, immediate surgical intervention.

LEARNING ACTIVITIES - continued

2. Postoperative

   a. NPO

   b. NG to low suction

   c. Nasal care and NG irrigation as ordered

   d. Parental fluids as ordered

   e. TCDB plus vitals q 2 to 4 hours

   f. Check for flatus and stooling

   g. Resume feeding when ordered

G. Prognosis

Good if the operation is performed at once. The chances of recovery are directly related to the number of hours of illness before the operation is done. After 24 hours, a high mortality rate is expected. A small percentage recur and will need further operation or barium enema reduction.

IV. Hernia: Umbilical and Inquinal

Umbilical Hernia

A. Pathology

An umbilical hernia is due to imperfect closure or weakness of the umbilical ring.

B. Incidence

These hernias occur in all races, but are more common in black children.

LEARNING ACTIVITIES - continued

C. Symptoms

1. Swelling at umbilicus
2. Protrudes when infant cries or strains
3. Easily reduced with gentle pressure

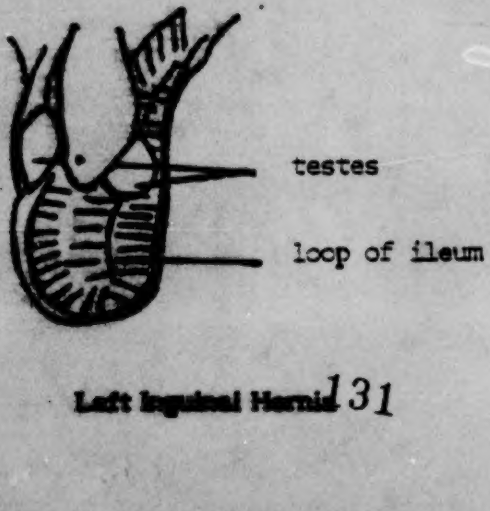
D. Treatment

1. Small umbilical hernias disappear without treatment.
2. Larger ones require operation if the hernia:
   a. Becomes strangulated (loop of the intestine gets constricted within the facial ring)
   b. Enlarges
   c. Persists to school age
3. Postoperative care requires no special technique - active as desired normal diet and fluids. Keep pressure dressing dry and remove as ordered.

Inguinal Hernia

A. Pathology

At birth, the testes move out of the abdomen through the inguinal ring and into the scrotum. The inguinal ring should close. Occassionally one or both of these rings fail to close completely or at all. This makes it easy for a loop of intestine to fall down through the weak inguinal area.



Left Inguinal Hernia

LEARNING ACTIVITIES - continued

B. Incidence

Inguinal hernias occur much more frequently in boys than girls. May be present at birth or may occur later. They may be unilateral or bilateral.

C. Symptoms

1. When sac empty no symptoms.

2. When abdominal contents are in the sac, incomplete bowel obstruction occurs.

a. Pain

b. Fretfulness

c. May have constipation

d. May have anorexia

D. Diagnosis

1. Intermittent appearance of a mass in the inguinal region

2. Physical exam findings of a sac which fills when infant cries or strains

E. Treatment

1. Surgical repair as soon as conditioned diagnosed

2. If incarceration occurs:

a. Apply ice to reduce edema

b. Elevate foot of bed

3. Postoperatively

a. Area dry and clean

b. Food and drink as desired a few hours postoperatively

c. Activity as tolerated

V. Celiac Disease

A. Etiology

Celiac disease has to do with an intestinal malabsorption syndrome. It is believed to be an inborn error of metabolism (hereditary). The child cannot ingest the glutan or protein portion of wheat or rye flour.

LEARNING ACTIVITIES - continued

B. Incidence

The disease may begin during infancy or the toddler period.

C. Pathology

1. Severe malnutrition
2. Secondary deficiency disease
    a. Rickets most common
    b. Scurvy
    c. Hypoproteinemia

D. Symptoms

1. Anorexia
2. Failure of growth
3. Abdominal distention
4. Irritability and other changes in behavior
5. Remission and flare-ups (Celiac Crisis - precipitated by mild respiratory infection)
6. Episodes of diarrhea (bulky, heavy, more than normal, frequent, mushy, foul smelling, pale and frothy)

E. Treatment

1. Control diet
    a. No wheat or rye and fat limited
    b. High protein - 5 to 6 gms/kg body weight
2. Adequate fluid intake
3. Psychological support to parents
4. Record new food taken and any abnormal reaction
5. Prevent infection
6. Prevent emotional upset

LEARNING ACTIVITIES - continued

F. **Prognosis**

Mortality rate is low. Recovery takes several months. Has a course of intermittent exacerbations and remissions. No actual cure, but clinical manifestations decrease in later life.

VI. Hirschsprung's Disease (Aganglionic Megacolon)

A. **Etiology**

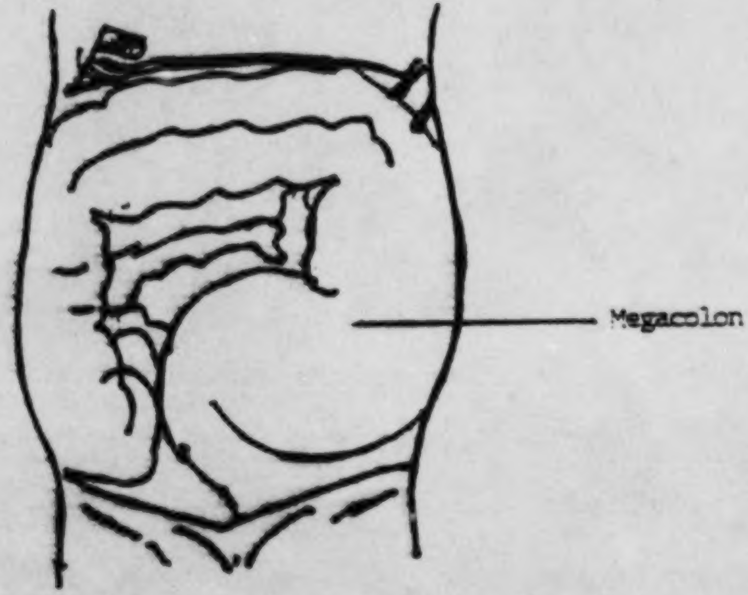
In Hirschsprung's disease, there is a congenital absence of parasympathetic ganglion nerve fibers. The result of this is that peristalsis is absent in that portion of the colon.

B. **Incidence**

The condition is more common in males than in females. The symptoms may be present at birth or may appear during infancy.

C. **Pathology**

The involved portion of the intestine has a narrow lumen and lacks peristaltic activity. The portion of the colon above this area is greatly dilated and hypertrophied, and feces and gas accumulate in it. The muscular coat of the dilated colon, at first hypertrophied, may become thin; in infants the mucosa may become ulcerated. See the diagram showing a megacolon below.



LEARNING ACTIVITIES - continued

D. Symptoms

Early infancy - most severe

1. Failure to pass meconium
2. Partial or complete intestinal obstruction
    a. Vomiting
    b. Abdominal distention
    c. Failure to pass stool
    d. Tachypnea
3. Diarrhea

Later infancy - less severe type

a. Constipation - gradually increasing
b. Abdominal distention
c. Fecal mass paluable - left lower quadrant
d. Rectum clear of stool
e. Small pellet, or ribbon-like stools
f. Disturbed nutrition
    (1) Failure to grow
    (2) Loss of subcutaneous tissue

E. Diagnosis

1. Clinical manifestations
2. Absence of findings positive for cystic fibrosis
3. No fecal matter in colon lower than the obstruction

F. Treatment

1. Frequent or daily enemas (isotonic solution as you may have some absorbed)
2. Retention enemas
3. Surgery when in good physical condition

LEARNING ACTIVITIES - continued

4. Colostomy first - then reconnect if possible

5. Low residue diet

6. Maintain fluids and electrolytes

G. Prognosis

Milder forms improve as the body grows. Surgical correction has given excellent results.

Exercise

Directions: Answer the following questions on gastrointestinal conditions of infants. Check your answers by reviewing your material.

1. What causes colic? ______________________________

2. Describe what happens to a baby during an attack of colic.

3. What can be done to relieve colic? ______________________________

4. Complete the following concerning intussusception.

Etiology: ______________________________

Incidence: ______________________________

Signs and symptoms: ______________________________

LEARNING ACTIVITIES - continued

Preoperative nursing care: ________________________________

____

Treatment: ____

____

Postoperative nursing care: ______________________________

____

5. What type of vomiting does the child with pyloric stenosis have? ________

____

____

6. Celiac disease involves malabsorption of what nutrients? __________

____

____

7. What foods are highest in the protein gluten? ________________

____

8. List five (5) signs and/or symptoms of celiac disease.

a. ____

b. ____

c. ____

d. ____

e. ____

9. How is celiac disease treated? ____________________________

____

____

10. Describe the pathology of Hirschsprung's disease. ______________

____

____

____

LEARNING ACTIVITIES - continued

11. What are two primary symptoms of Hirschsprung's disease?

    a. ______________________________

    b. ______________________________

12. How is Hirschsprung's disease treated? ______________________________

    ____

    ____

ACTIVITY #11. Genitourinary Problems of the Infant

Directions: Read your textbook, Textbook of Pediatrics Nursing, Chapter 14, pages 426-428, then read the following.

I. Pyelonephritis

A. Etiology

Infection of the renal pelvis and usually the bladder and ureters.

B. Incidence

It is the most common renal disease in childhood. Greatest incidence between 2 months and 2 years, the period when diapers are worn. Occurs more frequently in girls than in boys.

The female urethra is shorter than the male urethra. Infection results also from having stool in the diaper and entering by way of the short urethra.

C. Symptoms

1. May or may not be present
2. Onset gradual or abrupt
3. Fever moderate or high
4. Prostration. Pallor and anorexia.
5. Vomiting and diarrhea
6. Urinary frequency and urgency with dysuria
7. Irritable
8. Pain and tenderness in the kidney

LEARNING ACTIVITIES - continued

D. Diagnosis

1. Pus and bacteria in urine

2. If problems persist, intravenous or retrograde urography is done.

E. Treatment and nursing care

1. Be sure genitalia cleansed well before obtaining specimen or doing catheter.

2. Rest

3. Analgesic

4. Antibiotic as ordered

5. Fluid intake is important - force fluids to dilute urine concentration

F. Prognosis

If the problem exists or recurs frequently over a period of years, the kidneys are destroyed and renal failure results. Recurring problem should be investigated into possible urinary tract abnormalities.

II. Cryptorchidism

A. Etiology

Failure of one or both testes, in the male child, to decend into the scrotum.

B. Prognosis

Since an undescended testis is at a higher temperature within the abdomen than in the normal location, the scrotum, the sperm-forming cells, degenerate. Normal sperm production must occur in testes that are at a temperature lower than body temperature. If both testes are undescended, sterility results. Prognosis is good if surgery is successful.

C. Treatment and nursing care

1. Preservation of fertility - psychological support

2. Surgically (orchidopexy) or medically with hormones

3. Postoperatively

   a. Care taken not to disturb the scrotal traction designed to keep the testes in scrotum.

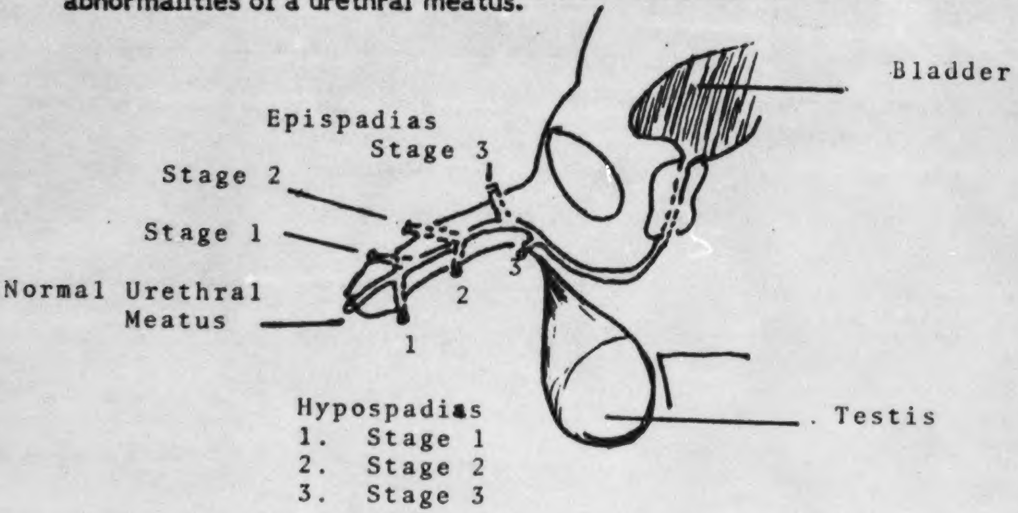
   b. Prevent contamination of suture line.

LEARNING ACTIVITIES - continued

III. Hypospadias

A. Etiology

Hypospadias is a congenital malformation in which the urethra, in the male, opens on the underside of the penis. See the diagram below showing the abnormalities of a urethral meatus.



B. Incidence

Occurs in about 1 in 125 male infants. All male infants should be carefully examined at birth for this condition. If it exists, they should not be circumcised since the foreskin will be used in the reconstruction later.

C. Treatment and nursing care

1. Observe infant for voiding
2. Correct with surgery at about 2 years of age
3. Postoperatively
   - a. Supra pubic and foley - do not dislodge and observe for drainage
   - b. Keep penis clean

D. Prognosis

Repair is necessary due to the psychological problem of not urinating normally. In severe cases, it also interferes with fertility in the adult male. Congenital malformation can be successfully corrected by surgery.

IV. Epispadias

In this anomaly, the urethral meatus is on the top side of the penis. The treatment is surgical. The psychological problems involved are the same as those in hypospadias.

LEARNING ACTIVITIES - continued

Exercise

Directions: Answer the following questions using information in this module and in your textbook.

1. Pyelonephritis is often caused by: ______________________________

2. How is pyelonephritis diagnosed? ______________________________

3. Why are fluids forced in the child with pyelonephritis? ______________________________

4. Why is acid urine desirable over alkaline urine? ______________________________

5. What is cryptorchidism? ______________________________

6. Why must cryptorchidism be corrected? ______________________________

7. Describe the postoperative care for a child after orchidopexy. ______________________________

8. Why should a male child with hypospadias not be circumcised? ______________________________

9. Why is hypospadias corrected? ______________________________

10. How does epispadias differ from hypospadias? ______________________________

LEARNING ACTIVITIES - continued

ACTIVITY #12. Nutritional Disorders

Directions: Read your text by Marlow, Chapter 15, pages 435-444, 460-461, and then read the following.

I. Malnutrition

A. Incidence

Malnutrition is less prevelant in the United States and Europe than it was a generation ago, but still a pressing social problem.

B. Cause

Malnutrition should be considered secondary to the condition causing it.

1. Fundamental cause

   a. Infant does not receive adequate diet.

   b. Infant is unable to assimilate sufficient nutriment for the needs of the body.

2. Specific cause

   a. Inadequate intake

   b. Badly balanced diet

   c. Poor feeding habits

   d. Physical defects such as cleft lip or palate or other anomalies

   e. Emotional problems

C. Diagnosis

Diagnosis of malnutrition may be determined by the obvious symptoms found on physical examination, failure of growth or by measurement of the body constituents.

D. Symptoms

1. Weight loss with subsequent loss of subcutaneous fat

2. Protuberant abdomen

3. Slow development

4. Listlessness

LEARNING ACTIVITIES - continued

5. Loss of skin turgor
6. Slowed metabolic process
7. Pulse rate and temperature decrease, appetite diminishes

E. Treatment

1. Slowly resupplying the child with nutrients
   a. IV fluids
   b. Hyperalimentation
2. Good skin care
3. Isolated for own protection
4. Hold closely and offer sucking experience (pacifier)
5. Strict I & O

F. Complications

1. Infection
2. Oral thrust
3. Pyelonephritis
4. Bronchitis
5. Anemia

G. Prognosis

Depends on the severity of the condition, its length, and whether infection is present. Severely malnourished infants may go into a state of collapse and die suddenly.

Malnutrition which occurs during the rapid period of brain growth in the infant may result in retardation of physical and mental development.

II. Kwashiorkior

A. Cause

Kwashiorkior is a problem of malnutrition due to a deficiency of protein and other nutrients in spite of an almost adequate calorie intake.

B. Incidence

It is most prevalent in some African countries, but may occur in this country. Occurs in children from 4 months to 5 years of age.

LEARNING ACTIVITIES - continued

C. Symptoms

1. Lack of adequate growth
2. Loss of muscle tone
3. Lack of energy
4. Increased susceptibility to infection
5. Diarrhea
6. Dermatitis
7. Dyspigmentation of skin and hair may occur (hair may become yellowish, red or gray).
8. Parasitic infestation and infection are prevalent.

D. Treatment

1. Fluid and electrolyte therapy
2. Treat infections
3. Protein and other nutrients at slow rate

E. Prognosis

Unfortunately, if the child survives, the likelihood of retarded growth and irreversible brain damage is great.

III. Iron Deficiency

A. Cause

The cause is almost always a lack of iron in the diet or the child's inability to use the iron ingested. One can produce hemoglobin only if the diet provides a supply of readily available iron. Causes can be attributed to a child's "picky" eating habit or poorly balanced diet, both of which don't include meat or other iron-rich foods.

B. Incidence

Iron deficiency anemia is the most prevalent nutritional disorder among children in this country. It is most apt to occur at periods of rapid growth.

C. Symptoms

1. Poor muscle tone
2. Slow motor development

LEARNING ACTIVITIES - continued

3. Weak

4. Waxy pallor

5. Hemoglobin is below 5 gm

D. Treatment

1. Adequate diet of meat and vegetables.

2. Oral intake of iron - if liquid, give with straw as some iron preparations cause discoloration of the teeth (RDA - Recommended Daily Allowance of iron for children under 4 years is 10 mg/day, those over 4 years - 18 mg/day).

3. Vitamin C - as it enhances the absorption of iron.

E. Prognosis

Generally prognosis is good when iron, vitamins, and improved diet are given. Recovery usually takes place in 4 to 6 weeks, but treatment is continued for 8 to 12 weeks longer.

IV. Vitamin Deficiencies

Various diseases are caused by inadequate intake of one or more vitamins. Although we will consider each deficiency disease separately, they do not usually exist singly.

A. Rickets

1. Cause

Rickets is a disease due to Vitamin D deficiency. Vitamin D is necessary for the absorption of calcium and phosphorous from the G.I. tract.

2. Incidence

Rickets is a deficiency disease of growing children from 3 months to 3 years.

3. Symptoms

Manifestation of rickets is most evident in the skeletal system. Deficiency in the structure of the bone is most pronounced in the lack of calcification of the epiphysis. A detectable enlargement occurs here. Dorsal Kyphosis develops when the infant sits up, also scoliosis with deformities of the pelvis.

LEARNING ACTIVITIES - continued

4. Diagnosis

   a. Serum calcium, phosphorous, and alkaline phosphate levels

   b. Gross clinical manifestations

   c. X-ray

5. Treatment and prevention

   a. Treat by giving 1500 to 5000 International Units a day of Vitamin D for a month.

   b. Prevent by moderate exposure to the sun and use of fortified commercially available milks.

6. Prognosis

   Minor deformities in general disappear during the preschool period. Severe deformities must be corrected.

B. Scurvy

1. Etiology

   Scurvy is a Vitamin C deficiency disease.

2. Pathology

   There is a defect in supporting substance in tissues, dentin, bone, cartilage, and blood vessels. There is usually bleeding from the gums and into bone. The mouth and affected limbs are very sore to touch and movement.

3. Prevention

   Scurvy can be prevented by adequate dietary intake of Vitamin C - 40 mg. of ascorbic acid per day for infants. Vitamin C is available in citrus products, particularly oranges. Foods naturally high in Vitamin C may lose the vitamin if not properly stored. Fruits and vegetables must be protected from light, air, and heat to preserve their Vitamin C content.

4. Treatment

   Treatment for scurvy is large doses of Vitamin C either in its naturally occurring form or as ascorbic acid given orally or by injection for a few days. This is followed by the normal requirement daily.

LEARNING ACTIVITIES - continued

ACTIVITY #13. Blood Disorders

Directions: Read your text by Marlow, pages 461-462, and then read the following.

I. Thalassemia

A. Etiology

Thalassemia is a chronic, congenital hemolylic anemia in which the chief defect seems to be an inability to produce cells capable of normal incorporation of hemoglobin.

B. Incidence

This condition occurs mainly in children whose parents or ancestors come from countries along the northern sphere of the Mediterranean Sea. However, cases do occur among Blacks, Orientals, Europeans, and Jews.

C. Types

1. Thalassemia minor (inherited from one parent)

   a. Mild anemia

   b. Cells unequal and irregular

   c. Spleen enlarged

   d. No incapacitating symptoms

2. Thalassemia major (inherited from both parents)

   Progressive, severe anemia not compatible with long life

D. Symptoms

1. Pallor

2. Mild jaundice which later becomes a muddy, bronze color

3. Enlarged spleen

4. Enlarged liver

5. Retarded physical development, poor posture, abdominal distention

E. Diagnosis

1. Significant skeletal changes on x-ray

2. Laboratory finding of anemia, low erythrocyte count and a low hemoglobin

LEARNING ACTIVITIES - continued

F. Treatment

1. No treatment for thalassemia minor
2. For thalassemia major, frequent blood transfusions

ACTIVITY #14. Inborn Error of Metabolism

Directions: Read the following.

I. Galactosemia

A. Etiology

Galactosemia represents an inborn error in the metabolism of galactose. The enzyme that changes galactose to glucose in the liver is missing. Galactose is not found in free form in foods; however, intestinal hydrolysis of lactose from milk products yields glucose and galactose.

B. Incidence

It is not a common condition. The symptoms appear one or two weeks after birth when the infant is well established on milk feeding.

C. Symptoms

1. Feeding difficulties
2. Vomiting
3. Weight loss

Later:

4. Enlargement of the liver and spleen
5. Hepatic failure
6. Mental retardation
7. Cataracts are evident

Finally:

8. Lethargy
9. Emaciation increases
10. Death from infection or hepatic failure

LEARNING ACTIVITIES - continued

D. Diagnosis

Made on the basis of finding galactose in the blood and urine of these infants.

E. Treatment

1. Take off milk - galactose-free diet of milk substitutes.
2. Cataracts, if present, require surgical treatment.

ACTIVITY #15. Review Exercise

Directions: Read and complete the following exercise using this module and your text to check your answers.

1. Malnutrition is a term used to indicate a condition in which one or more nutrients essential for health are lacking. One disease resulting from malnutrition is kwashiorkor. Complete the following concerning kwashiorkor.

Etiology: ____

____

Areas of world where it chiefly occurs: ______________________

Clinical manifestations: ______________________________

____

Nursing responsibilities: ______________________________

____

LEARNING ACTIVITIES - continued

2. In a poor diet many of the following vitamins and minerals are missing. Complete the following table.

Vitamins	Fat Soluble	Source	Deficiency
A			
B			
C			
D			
E			
K			

Minerals	Fat Soluble	Source	Deficiency
Iron			
Calcium			
Iodine			

3. How may rickets be prevented?

4. In addition to citrus, what foods are good sources of Vitamin C?

5. What is the most common nutritional problem among children in the United States?

6. What is the RDA for iron in infants?

7. List four (4) symptoms of iron deficiency anemia.

   a.

   b.

   c.

   d.

LEARNING ACTIVITIES - continued

8. What are the differences between Thalassemia minor and Thalassemia major?

____

____

9. Treatment of galactosemia involves: ______________________

____

10. List two (2) fundamental causes of malnutrition.

    a. ____

    b. ____

ACTIVITY #16. Sudden Infant Death Syndrome (SIDS, Crib Death)

Directions: Read Marlow, Chapter 14, pages 429-430 and then read the following.

A. Definition

SIDS is a disease entity, but the diagnosis is one of exclusion since it is not known what causes SIDS. Death was not expected from the history and autopsy shows no cause of death. These infants die silently and unexpectedly.

B. Incidence

Approximately 8,000 - 10,000 such deaths occur annually; approximately 2.5 or 2.8 per 1,000 live births. Excluding the first week of life, SIDS is the second leading cause of death, after accidents, in young children. The peak incidence occurs between 2 to 4 months of age. It is rare in the first few weeks and after six months of age.

C. Etiology

This is a medical mystery. However, this aura of mystery reinforces guilt. Parents need to know that SIDS cannot be predicted or prevented.

More physicians are beginning to believe that these tragic deaths are almost always due to sudden and very acute viral infections of the respiratory tract, an unknown inborn error of metabolism, laryngospasm or failure of cardiac condition.

LEARNING ACTIVITIES - concluded

SIDS is not thought to be a genetic disorder, but, if one child in the family dies of SIDS, a new sibling is 4 to 7 times a greater risk than the random risk of the general population. The less the infant weighs at birth the greater the possibility of crib death. The more respiratory difficulty the infant had and the lower the apgar score following birth the more likely the occurrence of SIDS. It is known that SIDS seems to occur in microepidemics and seems to occur with upper respiratory tract infections. More common in the winter months, it is not related to climate or temperature per se. There is an almost universal relationship with sleep. While there is no noise accompanied with the death, the death is not always nonviolent (the child may be found gripping clothing or be wedged into a crib corner). Death occurs more often in males than in females. Death occurs more frequent among non-white population than among whites, and in infants of lower-income families living in areas where housing and sanitation are poor.

D. Nursing responsibilities

If infant is diagnosed as having periods of apnea and has an apnea monitor, the nurse must teach the parents how to use it. Also, what course of action they would take if a period of apnea occurred. If loss of infant, then much support to parents. Also, the need for autopsy. Let parents know about available support in the community.

Exercise

Directions: Answer the following questions on SIDS.

1. What is SIDS? ______________________________

2. What is the cause of SIDS? ______________________________

____

3. When is the infant at high risk for SIDS? ______________________________

____

4. What can be done for the parents of the SIDS child? ______________

____

NURSING CARE OF CHILDREN

Module D - The Toddler (1-3 Years)

RATIONALE

To give effective nursing care to toddlers, it is essential for you to have a basic understanding of their psychological and physical characteristics. As a practical nurse, you must recognize illnesses common to this group and identify the nursing care needed. Emphasis is placed on accident prevention since accidents account for the greatest number of fatalities in this age group.

PERFORMANCE OBJECTIVES

To the instructor's satisfaction, the student will:

1. Identify normal growth and development of the toddler.
2. Describe the necessary health maintenance for a toddler.
3. Describe characteristics of illnesses common to toddlers.
4. Identify preventive measures related to accidents common to toddlers.
5. Describe appropriate nursing care for toddlers.

CLINICAL OBJECTIVES

In the clinical area and to the instructor's satisfaction, the student will:

1. Differentiate the normal growing and developing toddler with one who has problems in growth and development.
2. Assess the interaction between parents and their toddler.
3. Identify appropriate nursing care for the illnesses common to toddlers.
4. Exercise accident prevention that is appropriate to the developmental stage of the toddler.

LEARNING ACTIVITIES

Directions: The material needed to complete this module is found here and in Marlow's Textbook of Pediatric Nursing. If you have any questions, ask your instructor.

LEARNING ACTIVITIES - continued

ACTIVITY #1. Normal Growth and Development of the Toddler

Directions: Read the following descriptions for the growth and development of the toddler from fifteen (15) to thirty (30) months. This information relates to the normal average toddler and will vary from child to child. The psychosocial crisis for this age according to Erickson is the "sense of autonomy vs. shame and doubt." Read Chapter 16, pages 508-516.

I. Fifteen Months

A. Physical growth

1. Walks alone
2. Crawls upstairs
3. Builds tower with two blocks
4. Inserts objects into a bottle
5. Throws objects repeatedly and picks them up again

B. Social development

1. Uses jargon
2. Names familiar pictures or objects
3. Vocalizes wants and points to desired objects
4. Turns pages in books
5. Indicates when diaper is wet

II. Eighteen Months

A. Physical growth

1. Anterior fontanel is usually closed (may be closed by twelve months)
2. Abdomen protrudes
3. Runs stiffly with a somewhat wide stance
4. Sits on a small chair
5. Walks sideways and backwards; climbs upstairs
6. Scribbles vigorously

LEARNING ACTIVITIES - continued

7. Empties contents from a bottle
8. Builds tower with three blocks
9. Spills frequently
10. Pulls a toy

B. Social development

1. Knows ten words
2. Explores everything and everywhere
3. Shifts attention rapidly
4. Begins to have temper tantrums (protect, do not give attention, divert toward more socially acceptable outlet for anger and frustrations)
5. Enjoys solitary play
6. Selects favorite toy
7. May smear stool
8. May resist sleep
9. Holds cup to lips and drinks well with little spilling
10. Can fill spoon, but has difficulty inserting spoon into mouth

III. Two Years

A. Physical growth

1. Weighs approximately four times birth weight
2. Measures approximately 32-33 inches tall
3. Has approximately sixteen teeth
4. Runs well
5. Walks up and down stairs, one step at a time
6. Jumps crudely
7. Builds tower with five to six blocks; may make blocks into a train

LEARNING ACTIVITIES - continued

8. Drinks well from a small glass
9. Begins toilet training; will control either bladder or bowels during waking hours

B. Social development

1. Increases vocabulary to about 300 words
2. Makes short sentences of three to four words
3. Parallel play - no interaction with other children, even though their activity is the same
4. Behaves as if other children were physical objects; would like to make friends, but does not know how
5. Cannot share possessions; demonstrates great sense of "mine"
6. Obeys simple commands
7. Does not readily ask for help
8. Helps to undress
9. Begins toilet training; will control either bladder or bowels during waking hours
10. Manipulates play material
11. Imitative play
12. Dawdles frequently
13. Enjoys stories with pictures
14. Tells of immediate experiences
15. Demonstrates many routines and rituals
16. May fear parents leaving
17. Period of negativism ("No, No" age - "the terrible two's")

IV. Thirty Months

A. Physical growth

1. Has full set of 20 temporary (deciduous) teeth
2. Builds tower with seven or eight blocks

LEARNING ACTIVITIES - continued

3. Makes vertical and horizontal strokes, but generally will not join them to make a cross

4. Walks on tiptoes

5. Throws a large ball four to five feet

B. Social development

1. Refers to self by pronoun "I"

2. Helps put things away

V. Play

Purpose

1. Physical development continues through play. Muscles are developed and surplus energy can be worked off during active play.

2. Social development occurs when the toddler takes part in activities with other children. Social interaction is limited, but the child enjoys parallel play whereby the child plays beside another child, but not with him/her.

3. The therapeutic value of play is psychological as well as physical, for it directs drives so that they are a release in approved ways, and helps the child release emotional tensions.

4. Means of education. The toddler learns to know colors, shapes, sizes, and textures of play material by playing with all parts of toys.

5. Help the toddler develop moral values. The child begins to learn right from wrong. He begins to learn not to hurt other children by rough play.

During the toddler period, children have been developing a self-concept from reflected appraisal of significant people. Erikson believes children must feel strong support from adults to give them a sense of autonomy rather than shame or doubt concerning their worth. They need patience, love, and freedom with limits and alternatives to undesirable behavior. They are beginning to realize they are a separate person and that they can control some areas of behavior to conform to social demands.

ACTIVITY #2. Personality Development According to Freud

Directions: Read the following information on personality which portrays the toddler in a period of autonomy vs. shame and doubt. Read pages 493-496 in your text by Marlow.

I. One to Three Years (Anal Period)

A. Mastery of biological skills; toilet training.

LEARNING ACTIVITIES - continued

- B. Increase in communicative language. Communication alternates between shyness and eagerness.
- C. Appearance of "reality principle"; (postponement of immediate satisfaction in order to gain greater satisfaction in mastering reality).
- D. Mastery of motor skills
  - 1. Repeated experiences to convince themselves they can really do things
  - 2. Demonstrates skills slowly at first then more rapidly with practice
  - 3. Range of activities increases and conflicts arise (wants to get dressed at mealtime; play dolls instead of eat; get a forgotten toy instead of getting in the car)
- E. Parental intervention begins love-hate pattern and feelings of ambivalence
  - 1. Child shows anger when parent attempts to regulate activities or curtail activities for safety purposes.
  - 2. Child's anger grows; parent must accept this, showing child does not interfere with their relationship.
- F. Gradual gaining of sense of achievement and the delaying of pleasure
- G. Begins to learn the concept of sharing
- H. Patterns of self-control become fixed; child needs flexibility with consistency
- I. Learns to make choices and trust his/her own judgement, if opportunity given by parents

II. Adulthood Personality Traits Traceable to the Anal Period

- A. Unsatisfactory social habits
- B. Retardation or fixation noted in excessive orderliness or total abstinence from specific activity
- C. Obsessive - complusive neurosis which is demonstrated by the repetition of meaningless acts.
- D. Harsh toilet training results in frustration. Person may feel he/she has no power or control of situations in adulthood.
- E. Development of strong ambivalence toward other adults is due to the inability to handle love and hate earlier directed at the parent.

LEARNING ACTIVITIES - continued

ACTIVITY #3. Toilet Training

Directions: As a practical nurse, you may be required to teach a parent about toilet training. Read pages 496-499 in your text by Marlow. Then read the following.

Teaching a child to control urination is often thought of as the hardest job in the nursery program; but, it does not have to be so, if a few fundamentals are understood and applied. Remember, it cannot be accomplished until sufficient central nervous system development allows for sphincter control.

Control of urination is a mature act. This means that a child must assume the responsibility for holding back urination until placed on the toilet seat. Since this takes considerable brain power, much of your success in training the child will depend on waiting until the necessary brain power is developed. As a rule, this does not happen until the baby is old enough to walk alone. Most training problems arise because toilet training began too soon.

At best, urination will never be on a regular schedule as are bowel movements. Many factors affect the frequency of urination even in an adult. We all, young and old, need to urinate more often in winter than in summer. An unusual amount of liquids, strong emotions, sudden excitement, all increase the urinary output. So let us not expect perfection from a baby.

The goal of toilet training is to wait until the child is ready and willing to tell the parent when she needs to go. When the child is physiologically able to retain urine for a two-hour period, she is usually ready to begin training for urination. It is good to begin with daytime control and get it established first.

DAYTIME CONTROL: Before training is attemped, spend a few days trying to get an approximate idea of the times at which the child is wet. After this, take off the diapers and put her into cotton training pants. Try taking the child to the toilet to urinate at these times.

If the child gets the idea, well and good; if not, put her back into diapers and forget it for another month or so. Time spent trying to train a child when she does not understand is wasted and will only make the child antagonistic.

Repeat the same process next month. If and when the child seems to understand, try putting her on the toilet a little less often. Use some simple words or a phrase when the child urinates, so that while she is learning the word or phrase, she associates it with urinating; thus, she can be learning to tell you her needs.

It may take several more months before the child does learn to tell. As soon as this goal is reached, let her begin to take the responsibility for this act. She will forget occasionally at first, of course, but after a few weeks, most children do very well. Remember that the child will never learn to take responsibility unless she is allowed to take it.

LEARNING ACTIVITIES - continued

Is it proper to ask the child whether she wants to go to the toilet? Of course, when she comes in from outdoors, for instance, or just before bedtime. But do not make an issue of it, nor insist that she go when she does not want to. Above all, ignore failure and do not punish the child for an occasional slip. Praise is a parent's or nurse's best ally in teaching bladder control -- or anything else.

Daytime bladder control may be fairly well established by 2 years of age.

NAPTIME CONTROL: After daytime control has been established, naptime control is the next step, because it is the shortest sleep time.

Take off the child's diapers and tell him that he is now big and can stay dry during his nap. Try him out for three or four naps. If he wets the bed, he is not ready; so, stop for several weeks and then try, try again. Many children are two-and-a-half-years-old or older, before they get the idea of this decidely grown-up act.

NIGHTTIME CONTROL: This is the biggest step of all and should not be attempted until the child can keep dry during naptime. Put the child on the toilet just before bedtime. Then, after a few words, of "build up", try him for a few nights without diapers.

If day and naptime control have been well established, most children learn nighttime control quite quickly. If unsuccessful, put the child back into diapers until he grows up some more. There is a very great difference in the time at which individual children learn to keep dry.

Some doctors advocate taking a child to the toilet about 10 p.m., but since this puts part of the responsibility on the parent, it may be better to get by without it if possible. It is also helpful not to urge liquids after the supper hour is over. Above all, it helps not to talk too much about it. If the child does wet the bed, change the bed and make him comfortable without more ado. Sooner or later, the child will learn. We all do. Nighttime control is usually established by 3 or 4 years.

ACTIVITY #4. Health Maintenance For Toddlers

Directions: Read your text by Marlow, Chapter 16, pages 516-524. After you have completed the reading, continue reading below.

I. **Visits to Physician/Clinic**

   A. May occur every 2-4 months to twice yearly

   B. Immunization continued - booster immunization begins if they weren't done in infancy

   C. Check on growth and development progress. Detect any emerging problems, behavior, sight, hearing, etc.

II. Nutrition

   A. Toddler's meal schedule is usually like that of rest of family: 3 meals plus snacks if required.

LEARNING ACTIVITIES - continued

B. Needs less total amount of food since growth slower than in infancy

C. Begins ritualistic behavior in relation to food

  1. Strong likes and dislikes

  2. Preference for "only place at table"

  3. Preference for "my dish, spoon, etc."

D. Feeds self with fingers and utensils

  1. May be slow and sloppy

E. Needs to see good example in food choice and manners, since feeding habits are being acquired

*See page 524 in textbook for Recommended Daily Allowance (RDA) for children 1 - 3 years of age.

F. Serve food in small portions

  1. Do not force to eat

  2. Cut or chop food into small pieces

  3. Provide nutritious food and snacks

III. Dental Care

A. Teeth brushing should begin when child has first few teeth in infancy

B. Child should see dentist at intervals beginning on or before the second birthday

Prevention of tooth decay in the deciduous dentition is important

IV. Sleep

A. Less sleep needed than in infancy

B. Usually sleeps 10-12 hours at night and 1-2 hours during daytime nap

C. May resist sleep because it interferes with activities and separates child from family

  1. Likely to take a favorite toy to bed. This helps the child to relax.

  2. Other methods to relieve tension before going to sleep are head rolling, singing or talking to themselves

D. Nightmares usually begin at 2-3 years of age

LEARNING ACTIVITIES - continued

V. Safety

A. Accidents are primary cause of death in toddlers

1. Motor vehicles
2. Burns
3. Drowning
4. Falls
5. Poisons
6. Miscellaneous

B. Prevention is the best treatment

1. Best method of prevention is:
    a. Supervision of child. The two-year-old's curiosity may lead to danger
    b. A child must be taught about safety

C. Allow gradual increase in independence as child is ready

D. Maria hurts herself, sympathize with her, but point out in terms she can understand the reason why she hurt herself. Give her lessons in cause and effect; in this way her knowledge of what she can do safely will increase.

E. Specific safety measures

1. Motor vehicle accidents
    a. Cross the street holding an adult's hand
    b. Teach the child to cross at corner
    c. Teach the child that green means "GO" and that red means "STOP"
    d. Always check behind car before backing up
    e. Wear seat belts in cars
2. Burns
    a. Keep matches put up
    b. Turn handle of pan on stove to inside
    c. Use safety plugs in outlets

LEARNING ACTIVITIES - continued

3. Drowning
    a. Do not leave child alone in tub
    b. Do not let child swim alone
4. Falls
    a. Provide special equipment for the child to use to climb on that is safe
    b. Be sure all windows have screens
    c. Use gates at top of stairs
    d. Keep doors to cellar locked
5. Poisoning
    a. Keep cleaning substances out of child's reach
    b. Keep all medicine out of reach of children
    c. Harmful substances should never be kept in containers intended for food
    d. Parent should know to call a doctor or a Poison Control Center immediately if child takes any harmful substance
6. Suffocation
    a. Do not let children play with plastic bags
    b. Empty refrigerator should have door removed, or be locked with padlock

VI. Clothing

- A. Should be suitable for weather
- B. Should not be restrictive or confining
- C. Shoes should be worn when walking outdoors or on hard, cold surface
- D. Shoes should be well-fitting, allow some room for growth, and need not be expensive

LEARNING ACTIVITIES - continued

ACTIVITY #5. Review Exercise

Directions: Answer the following questions by filling in the blanks. Check your answers by referring to previously covered material.

1. Compare the physical growth of the toddler to that of the infant.

____

____

____

____

2. At what age would one expect the toddlers to feed themselves with a spoon?

____

3. In speech development, when would the toddler begin using 3 and 4 words phrases and sentences?

____

4. Erickson's term for the toddler's psychological task is learning

______________ -vs- ______________ .

5. At what age are most toddlers ready to begin toilet training? ______________

6. Compare the calorie requirement for toddlers and infants.

____

7. When should children first have their teeth brushed? ______________

8. When should visits to the dentist begin?

9. The leading cause of death in the toddler period is ______________ .

10. What is the best method of treating the above?

____

____

LEARNING ACTIVITIES - continued

11. List three ways in which a toddler indicates readiness for toilet training.

    a. ______________________________

    b. ______________________________

    c. ______________________________

12. Describe how toilet training is best accomplished.

    ____

    ____

    ____

    ____

    ____

13. List three common errors parents may make while helping the toddler become toilet trained.

    a. ______________________________

    b. ______________________________

    c. ______________________________

ACTIVITY #6. Endocrine Disorders of the Toddler

Directions: Read your book, Textbook of Pediatric Nursing, Chapter 15, pages 464-466. After you have read the text, continue with this activity.

I. Cretinism (Congential Hypothyroidism)

A. Cause

Cretinism is caused by hyposecretion of thyroxin in the newborn. It may be due to absence of the thyroid gland or failure of the thyroid to develop properly. Since the thyroid hormone is necessary for regulation of metabolism, this child has symptoms related to metabolic dysfunction.

B. Incidence

Most common endocrine disease of childhood, occuring in 1 of every 6,000 to 7,000 births

LEARNING ACTIVITIES - continued

C. Symptoms

Appears usually in the first few months of life, but may be delayed in breast fed babies. Breast milk transmits sufficient thyroxin until the child is weaned. Symptoms include:

a. anemia

b. constipation

c. dry skin

d. low temperature

e. slow pulse

f. lethargic

g. anorexia

h. slow mental development

i. delay in speech

j. delay in walking

k. cries little

l. sleeps most of the time

m. eyelids swollen

n. tongue protrudes from open mouth

o. arms and legs short

p. hands broad and fingers short

D. Diagnosis

Diagnosis of this condition is made by checking protein-bound iodine (PBI) level and with radioactive iodine uptake scan.

E. Treatment

1. Treatment involves giving a high doses of synthetic thyroid. When this is instituted, bone growth progresses rapidly. Therefore, Vitamin D and calcium should be increased in the diet.

LEARNING ACTIVITIES - continued

2. Hospitalized child on thyroid needs to be observed for symptoms of overdose. These are:
    a. rapid pulse
    b. loss in weight
    c. vomiting
    d. cramps
    e. diarrhea
    f. elevation of temperature
    g. personality changes (irritability)

F. Prognosis

Prognosis depends on when treatment is started. With early treatment, physical growth will likely be normal. Mental development however, will probably never be normal.

ACTIVITY #7. Inborn Errors of Metabolism

Directions: Read your book, Textbook of Pediatric Nursing, Chapter 15, pages 466-468. After you have read the text, continue with this activity.

I. Phenylketonuria (PKU)

A. Cause

Phenylalanine is an essential amino acid present in all protein foods. In healthy children this substance is changed in the body to usable form. Children with PKU are unable to use phenylalanine as obtained from food. The abnormal accumulation of phenylalanine apparently prevents normal brain development.

B. Incidence

The majority of affected infants are offsprings of two heterozygous carriers of the gene. It is not a common condition; it occurs in about 1 in every 10,000 births. The condition is equally common in boys as in girls.

C. Symptoms

Symptoms may appear at about four months of age and consist of a peculiar odor about the child and slow development. Neurologic symptoms appear; the child may exhibit disagreeable personality traits.

LEARNING ACTIVITIES - continued

D. Diagnosis

Diagnosis is made by a blood test which detects abnormally high levels of phenylalanine; urine test may also be done although is not as reliable as the blood test. Testing cannot be done at birth. The phenylalanine level in the blood level rises only after the baby begins an intake of protein - either formula or breast milk. Therefore, the test is delayed until the baby is a few days old. In most hospitals today this same blood test is done as a screening (early detections) procedure on all babies on the day of discharge. Then mothers are instructed to bring the baby back to the hospital in 2-3 weeks for a follow-up test. Both are done on heel blood and take very little time. The results are sent to the baby's doctor or wherever the child will receive care.

E. Treatment

1. Eliminate protein foods from the diet (fish, meat, nuts, cheese).
2. Substitute a synthetic food providing sufficient protein for growth and repair, yet containing very little phenylalanine such as Lofenalac.
3. Continuous support and guidance of family - restrictions are inconvenient and expensive.

F. Prognosis

Depends on more than one factor; the primary one being age of detection. Once brain damage has occured, it is irreversible. The prognosis is far more favorable if a diet with low phenylalanine content is begun and followed early. Some physicians advocate continuing the diet restriction into adolescence; other gradually phase it out at about 6 years of age. However, these diet restrictions and their inconveniences should be weighed against the certain retardation that would occur without them.

Exercise on Cretinism and Phenylketonuria

Directions: Complete the following by filling in the blanks.

1. **What causes Cretinism?**

____

____

LEARNING ACTIVITIES - continued

2. List eight (8) signs and symptoms of Cretinism.

   a.
   b.
   c.
   d.
   e.
   f.
   g.
   h.

3. Describe the treatment of Cretinism.

4. Write a brief description about the cause and effect of phenylketonuria (PKU).

5. What treatment is used to prevent mental retardation in phenylketonuria?

6. List some foods high in phenylalanine.

LEARNING ACTIVITIES - continued

7. Define the following terms:

   a. Phenylketonuria (PKU) ______________________________

   ____

   b. Phenylalanine ______________________________

   ____

   c. Lofenalac ______________________________

   ____

ACTIVITY #8. The Abused Child

Directions: Read your textbook, Chapter 15, pages 481-484, then read the following.

As a practical nurse, you will be responsible for caring for abused children. Often the parent will not admit what has happened; however, if you have knowledge of this condition you may be helpful in gathering facts.

Definition: Any child who received non-accidental physical injury (or injuries) as a result of acts (or omissions) on the part of the parents or guardian. This includes physical, sexual, or mental abuse.

The diagnosis you will see most often in the hospital is SNAT (Suspicious Non-Accidental Trauma). Some of the most difficult abuse cases are done in the name of discipline and the parents are genuinely convinced they are correct.

I. The Abusive Pattern - - Three Requirements

A. Parent(s)	Must have a potential to abuse; often they were themselves abused as children. Only approximately 5% are sadistic; the great majority are caught up in a web of circumstances and stress.
B. Child(ren)	Often only one child in a family is abused. Boys are more often physically abused. However, girls are more often victims of sexual abuse.
C. Crisis	Anything might trigger a parent to abuse a child.

II. Incidence

A. The incidence for abuse is about 350-500 per million per year, with the incidence higher in the summer and around holidays. About 700 children die annually because of child abuse. One-third of the victims are under the age of one year. These children are unlikely to hurt themselves but are targets for abuse because they are defenseless, demanding, and immobile. Another one-third of the victims are between the ages of one and three years when they are too young to realize when the parents have "had it". The remaining one-third are over the age of three years.

LEARNING ACTIVITIES - continued

B. The possibility of physical abuse should be considered when the parent:

1. Presents a contradicting or inadequate history
2. Gives a history of repeated injury
3. Is distrustful, evasive, or reluctant to give information or consent to further diagnostic studies
4. Reveals inappropriate awareness of the situation (either over or under-reaction)
5. Projects the cause of injury to someone else
6. Has delayed unduly in bringing the child for care or has been "hospital shopping"
7. Continues to worry about irrelevant problems unrelated to the injury or is concerned with self
8. Is misusing drugs or alcohol
9. Is displaying immature, impulsive behavior
10. Appears to be mentally ill
11. Is depressed and without necessary support (financial or emotional)

C. The possibility of child abuse should be considered when the child:

1. Has an unexplained or inadequately explained injury
2. Shows evidence of general poor care
3. Shows evidence of repeated injury
4. Is unusually fearful or unusually quiet
5. Seems to cling to the abusive parent
6. Is seen as different or bad by the parents
7. Shows evidence of x-ray changes in bone
8. Shows evidence of malnutrition and gains weight rapidly with feeding
9. Has injuries not mentioned in the history
10. Seems protective of or makes excuses for the parent

LEARNING ACTIVITIES - continued

III. Anger — Depression — Guilt Syndrome

A. There are days when everyone, especially parents, goes around in emotional circles. There is little difference in the rage of any parent, but the difference in how that rage is handled is tremendous. Anger and depression are twins. Depression will never go away as long as there is anger. Guilt builds up when one fails to live up to society's and one's own expectations. Working toward handling emotions constructively should be a goal for these parents. Organizations which help such families include Child Protective Services, Foster Grandparents, Parents Anonymous, and any concerned person.

B. Additionally, there are legal remedies through the courts for serious or repetitive situations in which drastic actions are necessary for the child's safety. Children are taken from their parents when necessary and may or may not be returned.

IV. Nursing Care and Treatment

A. Depends on the specific trauma to the child

B. Reporting and recording observations carefully and without judgement

C. Have a noncritical, nonpunative approach to parents

D. Encourage parents to visit and participate in child care

E. Be a role model

Exercise on Child Abuse

Directions: Complete the following by filling in the blanks.

1. Parents may abuse their children because:

____

____

____

2. Do abusive parents generally love their children? ______________

3. List five (5) clues to abuse that might be detected in a child:

a. ______________________________

b. ______________________________

c. ______________________________

d. ______________________________

e. ______________________________

LEARNING ACTIVITIES - continued

ACTIVITY #9. Accidents in Childhood

Directions: Read your text, Chapter 17, pages 556-564, then read the following.

As a practical nurse student, you will be responsible for teaching parents how to prevent accidents and what emergency measures they can take if an accident should occur.

I. Fire

A. Children play with matches and seem to be attracted to flames. In the case of a fire in the home, GET OUT!! DO NOT try to save anything except lives. If a child started the fire or thinks he/she started it, the child may hide, so check hiding places.

Every home should have a fire plan which includes an escape route that has been practiced by all family members. Also teach them fire safety.

B. Some facts you should know about fire safety

1. A fire cannot live without oxygen

2. Some small fires can be smothered

3. A carbon dioxide fire extinguisher is excellent for electrical fires and burning liquids. It also will not harm exposed foods.

4. Many people are scarred for life because of the clothing they were wearing at the time of the fire. Nylons, rayons, and other synthetic fibers are most combustible. Many of the synthetics melt and literally "cook the skin". Some, like acrylics, give off cyanide and other deadly gases while burning.

5. Natural fibers such as cotton, wool, and linen are less combustible than synthetics provided they are tightly woven. Any loosely-woven, fuzzy, or flimsy fabric is highly combustible.

II. Burns

A. Definition

A severe burn can be defined as an injury inflicted on the outer covering of the body, usually caused by excessive heat and accompanied by some systemic change that makes the treatment of a burn the problem it is. The chief cause of death from burns is shock and the toxic condition which arises from it.

LEARNING ACTIVITIES - continued

B. Cause

A burn may have various etiologies such as flame, steam, electricity, hot water, chemicals, friction, or radiation. Its severity is classified by the depth of the injury which is arbitrarily divided into three segments; first, second, and third degree.

C. Classification

1. First degree (superficial) burns are confined to the epidermis and are characterized by redness (as in sunburn).

2. Second degree (partial thickness) burns involve the dermis and are accompanied by blistering.

3. Third degree (total thickness) burns extend through all layers of the skin destroying even sensory nerve endings.

4. Some authorities include a fourth degree burn indicating charring in which everything, including bone, is destroyed.

D. Immediate treatment

1. Treatment of a first degree burn is directed primarily toward relieving pain by limiting activity and administering such common analgesics as aspirin. Cleanse the area and apply a thin layer of an anesthetic ointment with a clean bandage.

2. Treatment of second degree burns is concerned not only with relieving pain but also with preventing a second degree burn from progressing into a third degree burn.

   a. In addition to simple analgesics, immobilization and, if an extremity is involved, elevation and cold packs are used to alleviate pain and reduce edema.

   b. Care must be taken to avoid contaminating the wound.

3. A third degree burn will require all these methods of treatment in addition to administration of fluids to prevent hypovolemic shock. There is an outpouring of fluid into the burn area during the first 48 hours in addition to a loss of fluids from the surface of the burned area. Therefore, fluid and electrolyte imbalance presents a serious problem.

E. Emergency treatment

1. On the scene, immediately prevent further injury to the victim by putting out the fire, or in the case of chemical burns, by diluting the chemicals. Examine for and relieve any respiratory distress. Always anticipate respiratory distress when there are burns around the face or if the victim has been exposed to hot gases or smoke. Once an airway is assured, plunge or cover the burn area with cool water -- preferably moving water.

LEARNING ACTIVITIES - continued

This relieves pain and reduces fluid loss through the burn area. For transport to a care facility, cover the burn loosely to keep air off. DO NOT APPLY OINTMENT. It may infect the wound and will only have to be removed later for adequate treatment. Ointment, (vaseline, butter) keeps the heat in and increases pain. Check for other injuries such as fractures and open wounds.

F. Critical burns are defined as

1. Burns which are complicated by respiratory tract injury and/or fractures
2. Third degree burns involving the critical areas of the face, hands, feet
3. Third degree burns covering more than 10% of the body surface
4. Second degree burns covering more than 30% of the body surface

However, the age and general condition of the patient must be considered. A moderate burn in an ill person must be considered critical in terms of immediate treatment required.

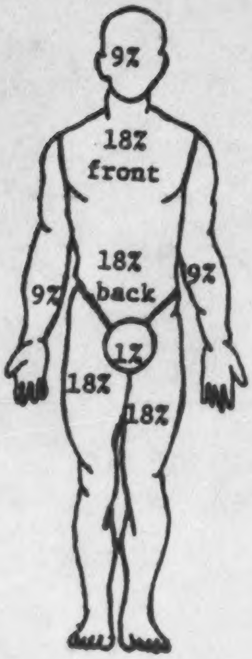
REMEMBER: Burns on the face, hands, and feet are much more severe because there is little subcutanious tissue to protect the underlying structures.

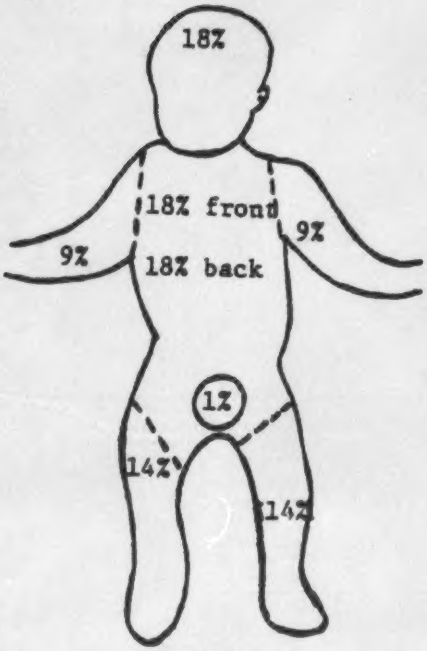
G. Rule of Nines

Due to the relationship between the extent of the surface area burned and the amount of fluid lost, the physician needs to estimate the percentage of the skin area affected. The Rule of Nines is a system which estimates body-surface area in approximate areas of nine. Because a small child has a larger surface area on the head and a smaller area on the leg surface than an adult, modifications are made in the percentage diagram. The diagram on the following page will help you to understand how the surface area is divided.

LEARNING ACTIVITIES - continued

THE RULE OF NINES





H. Burn treatment

For purposes of this discussion we will consider a patient with second and third degree burns over a large part of the body. Given this situation, the priorities of care are as follows:

1. Minimize fluid loss (make up fluid loss)
    a. Plunge burned area in water immediately (decrease edema, prevents further injury)
    b. Start I.V. at the scene or on admission to emergency room
    c. Keep warm (78° to 80°) and minimize air flow (reduce evaporation). Excessive heat may cause dilation of peripheral blood vessels and aggravate the circulatory disturbance.
    d. I & O - Foley catheter output should be 25 to 50cc/hr
2. Relieve pain
    a. Give small amounts of pain medication frequently
    b. Give medication IV

LEARNING ACTIVITIES - continued

3. Avoid abdominal distention (with burn, peristalsis is reduced)
    - a. NG tube inserted early
    - b. N.P.O. until peristalsis returns
4. Minimize infection and removal of eschar
    - a. Burn debridement (removal of necrotic and sloughed tissue)
    - b. Early initiation of treatment
        - (1) Dressing
        - (2) Cream (Silvadene - Sulfamylon 10%)
        - (3) Pig skin
    - c. Isolation (reverse)
5. Provide nutrition for healing
    - a. Hyperalimentation
    - b. Early resumption of oral feeding
6. Covering burn areas
    - a. Grafting (second and third degree)
        - (1) Homograft - using skin from another person
        - (2) Autograft - using skin from the patient
            - (a) Patchgraft - small skin grafts
            - (b) Split skin grafts
            - (c) Pedicle graft - attached on one side to original sight and other three sights attached to burn area
    - b. Growth of new skin (2nd degree)
7. Avoiding complications
    - a. Gastric ulcer - known as Curlings Ulcer or stress ulcer
    - b. Infection - first line of defense broken down

LEARNING ACTIVITIES - continued

c. Renal failure - blood volume decreased and circulation to kidney decreased

d. Dehydration - fluid loss

III. Poisons

Directions: Read your text pages 552-556, and then the following.

Approximately 800 children under five years of age succumb annually, in the United States, from the ingestion of poisonous substances. The incidence of accidental poisoning is highest in ages 1 to 4 with the peak occuring in the 2 and 3 year-old age group. Poisoning is more frequent in boys than girls in the age group under five.

A. What is a poison?

A poison is any substance that acts to produce a harmful effect on the normal body processes. Any chemical is a potential poison if enough is taken (even table salt). Poisons affect the body and the tissues of the body by irritating the cells, either exciting their function or by destroying them. Poisoning may result from ingestion, injection, inhalation, surface contact, or absorption of toxic substances through the skin and mucus membranes.

B. When to suspect poisoning

1. One should suspect poisoning whenever there is an unexplained acute illness. Predominate symptoms of ingested poisons include:

a. Abdominal pain

b. Nausea

c. Vomiting

d. Cramping

e. Stains around or in the mouth

f. Odor of product taken

g. Drowsiness or deep sleep

h. Depressed respirations

i. Slowed rate of circulation

j. Unconsciousness

LEARNING ACTIVITIES - continued

2. Other evidences of poisoning include:
    a. Convulsions
    b. Cyanosis or other discoloration of the skin
    c. Absence of pulse or respiratory sounds or movements
    d. Skin irritations
    e. Burns or rashes
    f. Eye inflammation

C. Poisoning may often be suspected because of external evidence. Gases and some other substances may be detected by smell. Significant objects near the victim may be important such as the remains of food, drinking glasses, bottles, or containers. The importance of taking along the container(s) to the E.R. cannot be overemphasized. Take it with the victim so that its exact contents can be determined. If the victim vomits or has vomited, the vomitus should be collected and taken with him to the hospital. This may provide the test clue to the nature of an ingested poison.

D. Poison prevention in the home

1. Never leave open containers of poisonous substances (starch, detergents, bleach, etc.) unattended. If you must leave momentarily, remove substance to a safe area.

2. Be watchful of children who chew objects persistently — paint is extremely toxic, especially if it contains lead. Lead poisoning can lead to encephalitis and death.

3. Keep products in their original containers. Never transfer poisonous products into pop bottles or other such containers that children usually associate with an approved beverage. If you MUST use another container, transfer the proper label to the new container — however, remember that small children cannot read labels.

4. Keep all potentially dangerous objects out of sight and out of reach of children. DO NOT overlook the cupboard where poisonous household supplies are kept; the garage where insecticides are kept; dresser tops and drawers where cosmetics are available; as well as medicine chests. LOCK cabinets whenever possible.

5. Get rid of old prescriptions — but do so safely!! Flush down the drain, then RINSE container in water before discarding.

6. Be equally cautious of other containers that are thrown in the trash barrel. Children love to drink from attractive containers.

LEARNING ACTIVITIES - continued

7. Educate all members of the family concerning safety precautions in regard to poisons.

8. NEVER tell a child that medicine is candy.

9. Always read labels carefully before administering medication.

10. Many products commonly found in the home can be deadly if ingested or if swallowed by children. Among these items are:

    a. Drain and bowl cleaners

    b. Detergents, bleach, and fabric softeners

    c. Furniture polishes and waxes

    d. Cleaning and lighter fluids

    e. Many cosmetics such as:

        (1) Skin lotions

        (2) Deodorants

        (3) Perfumes

    f. Numerous plants

    g. Shoe polish

    h. Paint

    i. Pesticides

    j. Medications

11. DO NOT STORE INTERNAL MEDICATIONS WITH EXTERNAL PRODUCTS.

E. Antidotes and first aid for poisoning

An emergency ALWAYS exists if someone swallows poison. DO NOT DELAY, CONTACT HOSPITAL OR PHYSICIAN IMMEDIATELY. OBTAIN THEIR ADVICE CONCERNING PROPER EMERGENCY MEASURES. IF NECESSARY, SUMMON THE POLICE OR RESCUE SQUAD FOR ASSISTANCE. **EVEN AFTER EMERGENCY MEASURES HAVE BEEN TAKEN, FOLLOW-UP CONSULTATION WITH A PHYSICIAN IS EXTREMELY IMPORTANT SINCE A DELAYED REACTION CAN BE FATAL.**

LEARNING ACTIVITIES - continued

If poison is from a container, take the container with intact label to the medical facility treating the victim. If poisonous substance is a plant or other unlabeled substance, be prepared to identify suspected substance. Save evidence such as portions of ingested materials from vomitus which may help to identify plant or object involved.

It is important to dilute or remove poisons as soon as possible. Large doses of milk are often given to dilute the poison and everyone should keep Syrup of Ipecac in their home to induce vomiting if recommended by a physician or if indicated on product label.

HOWEVER....vomiting is NOT recommended in all cases. NEVER induce vomiting in a victim who is unconscious or convulsing. DO NOT induce vomiting if swallowed substance is an acidic or corrosive or petroleum distillate product.

With lead poisoning, gastric gavage is done immediately, followed by cathartics and enemas. To increase excretion of lead, EDTA MAY BE GIVEN (ethylenediamine, tetra-acid aide bonds with lead and helps it to be excreted in the urine).

The following represents substances most frequently ingested by children and first aid measures that may be employed UNTIL medical aid can be summoned.

SUBSTANCE	EMERGENCY TREATMENT
Paint (liquid)	Give 2-3 glasses of milk. DO NOT induce vomiting.
Household Cleaning and Polishing Agents	
Laundry bleach, automatic dishwasher, washer detergents, household cleaners, furniture polish, cleaning fluids (gasoline, kerosene), charcoal fire starter.	Give 2-3 glasses of milk. DO NOT induce vomiting.
Toilet Bowl and Drain Cleaners	DO NOT Induce vomiting. Give 2-3 glasses of milk. AVOID gas-forming carbonates and bicarbonates.

LEARNING ACTIVITIES - continued

SUBSTANCE	EMERGENCY TREATMENT
Wax Remover	Give milk. DO NOT induce vomiting.
Fabric Softeners	Give milk. Neutralize with WEAK soap (not detergent) solution. Then, induce vomiting.
Household Ammonia	Give citrus juice. Give 1 tablespoon of vinegar in 1 glass of water. Then, give 2 raw egg whites or 2 oz. olive oil. DO NOT induce vomiting.
Cosmetics Cologne or perfume, hand lotion, liquid makeup, skin lotion, after shave lotion.	Give milk. Then, induce vomiting if large amounts ingested.
Deodorant	Give milk. Then, induce vomiting.
Medicine (overdosage) Aspirin and aspirin-containing medications; cough medicine; hormone (including thyroid) preparations.	Give 2-3 glasses of milk then induce vomiting UNLESS victim is unconscious or convulsing.
Vitamins and Iron Tablets	Give milk, then induce vomiting if large or questionable amount ingested.
Sleeping Pills	Induce vomiting if alert. DO NOT induce vomiting or force fluids if patient is unconscious.
Tranquilizers	Induce vomiting unless patient is unconscious. Give 2 tablespoons Epsom Salts in 2 glasses of water.

LEARNING ACTIVITIES - continued

SUBSTANCE	EMERGENCY TREATMENT
Insecticides, Poison Substances (Read label for content.)	
Arsenic	Give glass of milk immediately and induce vomiting. Then give activated charcoal (available from pharmacist).
DDT	Induce vomiting. Then give 2 tablespoons Epsom Salts in 2 glasses of water.
Lye	DO NOT induce vomiting. Give large amounts of water.
Paint (dry)	Give milk, induce vomiting.
Bubble bath liquid, hair rinse (conditioners), shampoo.	Give milk, then induce vomiting.
Nail polish and removers, lacquers, bath oil.	Give milk, then induce vomiting.
Home permanent neutralizer, permanent wave solution.	Give milk, then induce vomiting. Then, give weak acid such as lemonade, citrus juice, diluted vinegar water.
PLANTS	
ANY plant is a potential poison.	Induce vomiting if convulsions are not imminent. Give artificial respiration if necessary.

LEARNING ACTIVITIES - continued

PLANTS THAT POISON

PLANT	POISONOUS PART	POISONING SYMPTOMS
Bird of Paradise	Pod	Nausea, vomiting, diarrhea, drowsiness, and vertigo. A lick of the seed pod is enough to make up a toxic dose of this oil.
Black Locust	Bark, sprouts foliage	Children have suffered nausea, weakness, and depression from chewing the bark and seeds.
Castor Bean	Seeds	Fatal. Vomiting, diarrhea, hemolyzed red blood cells and kidney damage. One or two castor bean seeds are near the lethal dose for adults.
Cherries, wild and cultivated	Twigs, foliage	Fatal. Contain a compound that releases cyanide when eaten. Gasping, excitement, and prostration are common symptoms that often appear within minutes.
Dieffenbachia (Dumbcane) Elephant Ear	All parts	Intense burning and irritation of the mouth and the tongue. Containing an enzyme that destroys protein. Death can occur if base of the tongue swells enough to block the air-passage of the throat.
Elderberry	Shoots, leaves bark	Children have been poisoned by using pieces of the pithy stems for blow guns. Nausea and digestive upset.
Foxglove	Leaves	One of the sources of the drug, Digitalis, used to stimulate the heart. In large amounts, the active principles cause dangerously irregular heartbeat and pulse, usually digestive upset and mental confusion. May be fatal.
Hyacinth, narcissus, daffodils	Bulbs	Nausea, vomiting, diarrhea. May be fatal.
Iris	Underground stems	Severe, but not usually serious; digestive upset.

LEARNING ACTIVITIES - continued

PLANT	POISONOUS PART	POISONING SYMPTOMS
Jessamine	Entire plant, especially berries	Fatal. Toxic alkaloids are capable of depressing and paralysing motor nerve ends. Digestive disturbance and nervous symptoms. Death caused by respiratory arrest.
Jimson Weed (thorn apple)	All parts	Merely touching the weed and then rubbing your eyes can cause dilation of pupils. When eaten, can have a sedative, atropine like effect. Symptoms include intense thirst, dilated pupils, vomiting, vertigo, rapid and weak pulse, partial blindness delirium and incoherence. Severe toxicity is characterized by convulsions or coma. Can be fatal.
Lantana Camara	Green berries	Fatal. Affects lungs, kidneys, heart, and nervous system. Symptoms include extreme muscular weakness, gastrointestinal irritation and circulatory collapse.
Larkspur	Young plants, seeds	Digestive upset, nervous excitement, depression. May be fatal.
Laurels, Azaleas Rhododendron	All parts	Fatal. Produced nausea and vomiting, depression, difficult breathing, coma and prostration.
Lily-of-the-Valley	Leaves, roots, flowers	Symptoms similar to those of cardiac arrest. Dizziness and vomiting may occur.
Morning Glories	Seeds	Produces symptoms similar to those occuring with the Jimson Weed.
Moonseed	Berries (blue purple color resembling wild grapes)	Contains a single seed. May be fatal.
Mistletoe	Berries	Fatal. Both children and adults have died from eating the berries.
Mushrooms	All parts	Produce colic, gastrointestinal distress, and muscular weakness.

LEARNING ACTIVITIES - continued

PLANT	POISONOUS PART	POISONING SYMPTOMS
Nightshade	All parts, especially the unripe berry.	Fatal. Intense digestive disturbances and nervous symptoms.
Oaks	Foliage, Acorns	Affects kidneys gradually. Symptoms appear only after several days or weeks. Takes a large amount for poisoning.
Oleander	Leaves, branches extremely poisonous	Symptoms of toxicity are nausea, depression, irregular pulse, bloody diarrhea, and paralysis.
Potatoes (common white)	Sprouts and green parts of long-stemed white potatoes	Ingestion can cause mental confusion, nausea, difficult breathing, and a slow heartbeat.
Poinsettia	Leaves	Fatal. One leaf can kill a child.
Rhubarb	Leaf blade	Fatal. Large amounts of raw or cooked leaves can cause convulsions, coma, followed rapidly by death.
Wisteria	Seeds, pods	Mild to severe digestive upset. Many children are poisoned by this plant.

Accident Prevention at Various Age Levels

TYPICAL ACCIDENTS	NORMAL BEHAVIOR CHARACTERISTICS	PRECAUTIONS
	FIRST YEAR	
Falls	After several months of age, can squirm and roll and later creep and pulls self erect.	DO NOT leave alone on tables, etc., from which falls can occur. Keep crib sides up.
Ingestion of foreign objects (poisoning).	Places anything and everything in mouth.	Keep small objects and harmful substances out of reach.

LEARNING ACTIVITIES - continued

TYPICAL ACCIDENTS	NORMAL BEHAVIOR CHARACTERISTICS	PRECAUTIONS
	FIRST YEAR - continued	
Burns	Has great curiosity	Keep handles of pots on stove out of reach and containers of hot food away from edge of table.
Drowning	Helpless in water	DO NOT leave long in tub of water.
Aspiration	Puts everything in mouth	Keep small objects out of reach. NO NUTS.
	SECOND YEAR	
Falls	Able to roam about in erect posture. Goes up and down stairs	Keep screens in windows. Place gate at top of the stairs.
Motor Vehicles		Keep in enclosed space when outdoors and always in the company of an adult. Use safety restraints in cars.
Burns	Has great curiosity	Cover unused electrical outlets; keep electric cords out of easy reach.
Ingestion of poisonous substance	Puts everything in mouth	Keep medicines, household poisons, and small sharp objects out of sight and out of reach.
Drowning	Helpless in water	Protect from water in tub and in pools.
Aspiration	Puts most things in mouth	Keep small objects out of reach. Begin teaching what not to put in mouth.

LEARNING ACTIVITIES - continued

TYPICAL ACCIDENTS	NORMAL BEHAVIOR CHARACTERISTICS	PRECAUTIONS
	2 - 4 YEARS	
Falls	Able to open doors, runs and climbs	Keep doors locked when there is danger of falls. Place screens or guards in windows.
Motor Vehicle	Can ride tricycle	Teach about watching for cars in driveway and in streets, and about danger of following the ball into the street. Use safety restraints in cars.
Ingestion of poisonous substance	Investigates closets, drawers, cabinets, and cupboards	Keep medicines, household poisons, and chemicals out of sight and out of reach. Keep doors locked.
Burns	Plays with mechanical gadgets	Keep firearms locked up. Keep knives, electrical equipment out of reach.
Cuts	Can throw ball and other objects	Teach about risks of throwing sharp objects and keep knives out of reach.
Drowning	Helpless in water	Protect from water in tub and in pools.
Aspiration	May still be putting objects in mouth	Teach and keep small objects out of reach.

LEARNING ACTIVITIES - continued

TYPICAL ACCIDENTS	NORMAL BEHAVIOR CHARACTERISTICS	PRECAUTIONS
5 - 9 YEARS		
Motor Vehicles and Bicycle Accidents	Daring and adventurous. Control over large muscles more advanced than control over small muscles	Teach techniques and traffic rules for bicycling. Use seat belt in cars.
Drowning		Encourage skills in swimming. DO NOT swim alone.
Burns		
Firearms	Has increasing interest in group play; loyalty to group makes him willing to follow suggestions of leader	Keep firearms locked up except when adults can supervise their use.
10 - 14 YEARS		
Bicycle Accidents	There is a need for strenuous physical activity	Teach the rules for pedestrian safety. Teach bicycling safety.
Burns		
Drowning		
Firearms		Instruct in safe use of firearms. Provide safe and acceptable facilities for recreation and social activities.
Falls		
Motor Vehicles		Prepare for automobile driving by good example on part of adults and closely supervised instruction.

LEARNING ACTIVITIES - continued

TYPICAL ACCIDENTS	NORMAL BEHAVIOR CHARACTERISTICS	PRECAUTIONS
	10 - 14 YEARS	
	Plays in hazardous places (street, railroad tracks, near rivers) unless facilities for supervised, adequate recreation are provided.	
	Need for approval of peers leads to daring or hazardous feats.	

IV. Drowning

Drowning may be a problem for all toddlers and older children. Being able to swim is no insurance against drowning. Children in any part of the country are in danger of drowning because it only takes a small amount of water to drown a child. Children drown in bathtubs, ponds, puddles, pools, and oceans.

Drowning is another of those conditions that is best prevented. Prevention for young children is best accomplished with vigilance on the part of the caretaker. Toddlers must be watched when they are in the tub or kiddie pool. They should be with an adult when in a large pool or ocean. Backyard pools should be fenced or covered to keep children from wandering near them. It only takes 3-4 minutes for brain damage or death to occur from drowning. The second line of defense against drowning is teaching. Children must be taught about dangerous areas. Teaching them to swim will help some, provided they won't panic if they fall into water unexpectedly. Children must be helped to develop the self discipline to avoid some areas no matter how enticing they seem.

Our bodies do have one protective mechanism with regard to drowning. This is the "dive relex". Upon entering cold water, our body systems slow down, pulse rate drops, respiratory rate drops, metabolic rate slows. This decreases the body's need for oxygen. Therefore, a person, child or adult, who falls into cold water may be successfully resuscitated after more than the standard 3-5 minutes under water. Some have been resuscitated after as much as 10 minutes in very cold water with no brain damage. The colder the water the more effective the "dive reflex".

People who die from drowning do so from the lack of oxygen, not lungs filled with water. Resuscitation is aimed at providing oxygen and restoring the heart beat as for anyone.

LEARNING ACTIVITIES - continued

ACTIVITY #10. Cardiopulmonary Resuscitation for Children

CPR in children is done for the same reason as in adults -- sudden unexpected cessation of breathing and/or heart beat. It may be done by one person but is more effectively done by two. Differences for children are in the areas of speed and force of compressions and breaths.

I. Respirations

A. Children normally breathe faster than adults and move a smaller volume of air. Therefore, breaths should be given quickly at the usual rate for the child (infant about 40 per minute and decreasing with age). The head should be hyperextended slightly (not severely) with the resuscitator's mouth covering the child's nose and mouth if possible. For toddlers and larger children, the nose is occluded and breaths are given through the mouth as with adults. The breaths for an infant should be no more than short puffs. Large forceful insufflation could damage the baby's lungs. For older children, deeper breaths are given.

II. Cardiac Compressing

A. Compressions are done more rapidly and with less force in children than in adults. Infants should receive 100 or more compressions per minute as that more nearly approximates the child's normal heart rate. The rate decreases with age. Since the child is smaller, chest compressions are given with less force than with adults. For newborns and infants, the resuscitator uses the first two fingers of one hand over the middle third of the sternum. For toddlers through young school age, the heel of one hand over the lower third of the sternum is used. Over the age of 9-10 years, the heels of both hands are used and force increases with age.

B. The ratio of breaths to compressions

1. If there is one resuscitator, give 15 compressions to two breaths
2. Two resuscitators, give one breath per five compressions

The resuscitative effort will be either successful or not. If not, the physician will decide when resuscitation efforts should be stopped. If resuscitation is successful, the child not in an intensive care setting will be moved to the I.C.U.

Cardiopulmonary Resuscitation

Children

Part of Hand	Hand Position	Depress Sternum	Rate of Compressions
Heel of one hand	Mid Sternum	3/4 to 1 1/2 in.	80-100/min

LEARNING ACTIVITIES - continued

Infants

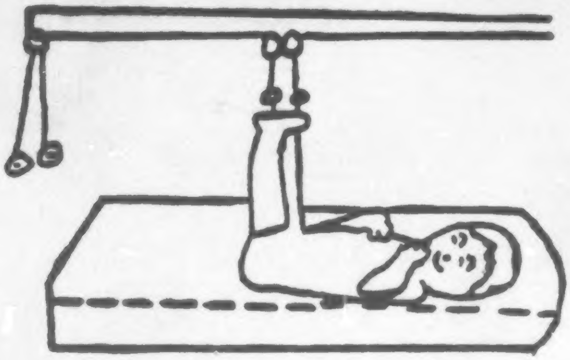
Part of Hand	Hand Position	Depress Sternum	Rate of Compressions
Tip of index and middle finger	Mid Sternum	1/2 to 3/4 in.	80-100/min

ACTIVITY #11. Traction

Directions: Many of the accidents which occur during the growth years result in broken bones. The diagrams will show you the different types of traction that the child may have to endure if a broken bone does occur.

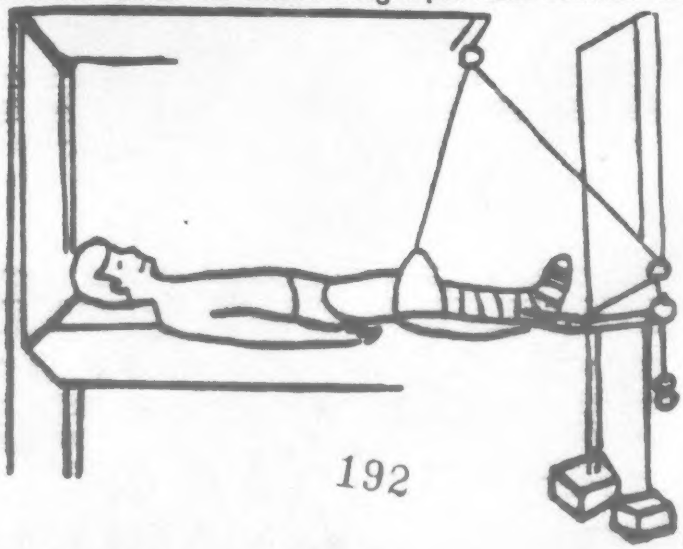
I. Bryant's Traction

Both legs are suspended from the overhead frame, lifting the buttocks off the mattress. Commonly used with a fractured femur (used for child under 3 usually).



II. Russell's Traction

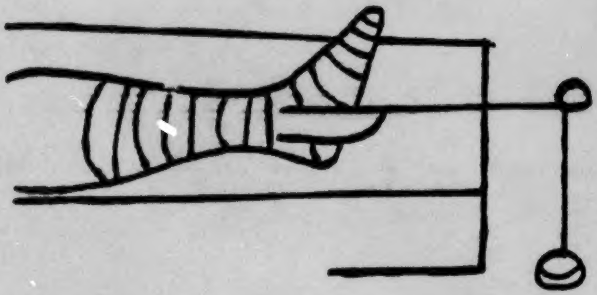
Used for the fracture of the femural shafts in older children. Blocks are used to lift the foot of the bed so the child's weight provides counter traction.



LEARNING ACTIVITIES - continued

III. Buck's Extention

The heel should clear the mattress.



IV. Goal

The goal to keep in mind when treating any fracture is to reduce and immobilize the fracture to restore function. With toddlers this is a real challenge.

V. Nursing Care of the Child in Traction

A. Observe the traction ropes to see that the child's body is in correct alignment

B. Feel toes frequently to note any signs of impairment of circulation

C. Check toe for blanching

D. Observe any cyanosis, tingling or loss of sensation - this is an indication that the bandage is too tight

E. Encourage child to wiggle toes from time to time to help maintain circulation

F. Good skin care to back and buttocks

G. Keep bed dry and free from wrinkles and crumbs

H. Provide amusement - place bed where child can see activities

I. Good fluid intake for bowel and bladder function

LEARNING ACTIVITIES - continued

ACTIVITY #12. Review Exercise

Directions: Complete the following by filling in the blanks. Check your answers by referring to previously covered material.

1. Describe why small children are at greater risk for being burned than adults.

____

____

____

2. List three agents that cause burning:

   a. ______________________________

   b. ______________________________

   c. ______________________________

3. What immediate first aid should be given to the burn victim?

____

____

____

____

4. In the order of priority, list treatment that will be given to the burn victim.

____

____

____

5. Define hypovolemic shock, and describe its significance in the burn victim.

____

____

____

LEARNING ACTIVITIES - continued

6. Define the following three types of burns:

   a. First degree ____________________

   b. Second degree ____________________

   c. Third degree ____________________

7. Minimum urinary output for a three-year-old would be approximately __________ml per hour.

8. Urinary output below that amount may indicate: ____________________

9. Following a severe burn, what type of diet should the child be placed on?

   ____

10. What would be the room temperature for the burn patient and why?

    ____

11. Define the following terms:

    a. Eschar ____________________

    b. Rule of Nines ____________________

    c. Curling's Ulcer ____________________

    d. Debridement ____________________

    e. Homograft ____________________

    f. Autograft ____________________

12. List five methods used to prevent accidents from burns:

    a. ____________________

    b. ____________________

    c. ____________________

    d. ____________________

    e. ____________________

LEARNING ACTIVITIES - continued

13. Why are peanuts and popcorn not safe foods for toddlers?

____

____

14. What is the most effective means for preventing injuries to children while traveling in motor vehicles?

____

____

15. List six safety measures for toddlers:

    a. ______________________________
    b. ______________________________
    c. ______________________________
    d. ______________________________
    e. ______________________________
    f. ______________________________

16. What is the chief danger in the ingestion of petroleum distillates?

____

17. The safe dose of aspirin for children is: ______________

18. Irreversible effects of lead poisoning include: ______________

19. EDTA is somewhat effective in lead poisoning because:

____

20. List seven (7) neurological signs indicating brain injury.

    a. ______________________________
    b. ______________________________
    c. ______________________________
    d. ______________________________
    e. ______________________________
    f. ______________________________

LEARNING ACTIVITIES - continued

21. A thirty (30) pound child with a fractured femur would be placed in ______________________ traction.

22. The patient in traction should be encouraged to drink plenty of fluids because:

____

____

23. Drowning of a toddler can best be prevented by:

____

24. Describe the "dive reflex" and how it works:

____

____

____

____

____

25. How does CPR differ in children and adults?

____

____

____

____

____

ACTIVITY #13. Urological Conditions in Children

Directions: Read Chapter 18, pages 572-575, Chapter 20, pages 664-666, and then the following.

I. Nephrosis (Nephrotic Syndrome)

A. Cause

Unknown

B. Incidence

1. Children 2 1/2 years of age at onset
2. More in boys than girls

LEARNING ACTIVITIES - continued

C. Pathology

1. Kidneys yellow and enlarged

2. Lesion exists in the glomeurli

3. Lesion allows excessive loss of plasma and protein in urine

D. Signs and Symptoms

1. Edema

    a. First around eyes and ankles

    b. Then becomes generalized (anasarca)

2. Weight increases

3. Fluid collected in thorax and peritoneal cavity may interfere with respirations

4. Skin is stretched (striae may appear)

5. Urinary output drops as edema increases

6. Malnutrition exists due to anorexia

7. Irritability and letharagy are characteristic

8. Cardiac failure from fluid overload may precipitate death

9. Proteinuria - severe at times

10. Decrease serum albumin

11. Blood pressure normal unless severe renal insufficiency exists, then hypertensive

E. Treatment

1. Control infection with antibiotics

2. Promote good nutrition through balanced, high protein diet

    a. Encourage eating

    b. Diet may or may not be salt limited

3. Steroids, Corticotropin and Prednisone given to induce diuresis and decrease edema

4. Proteinuria clears with diuresis. Peritoneal drainage (paracentesis) may be necessary if a large ascitic collection of fluids is causing respiratory or cardiac distress.

5. Other drugs may be effective (immunosuppressive agents such as Cytoxan)

F. Bed rest only during edematous stages

G. Nursing care

1. Protect edematous skin (no tape)

2. Eyes may be irrigated periodically

3. Avoid chilling and exposure to those with upper respiratory conditions

4. Promote appetite

a. Small feeding

b. Favorite foods

5. Observe for respiratory embarassment

6. Record daily weight and intake and output correctly

7. Enforce bedrest when necessary

8. Provide appropriate play activities

9. Prior to paracentesis, be sure to explain procedure to child. Have child void so less danger of puncturing the bladder. Observe child closely, if the ascitic fluid is permitted to run too rapidly, the intra-abdominal pressure decreases too quickly causing the blood to distend deep abdominal veins and reduce the normal supply to the heart. This may cause shock.

H. Prognosis

1. Characterized by remission and exacerbation. No known cure, usually disappears of its own accord with supportive care.

2. Death is due to renal failure

LEARNING ACTIVITIES - continued

II. Glomerulonephritis

   A. Cause:

      1. Follows a group A beta hemolytic streptococcal infection. Usually in the upper respiratory area

      2. Commonly follows either scarlet fever or strep throat

      3. Affects boys more than girls about 7 years of age

   B. Pathology

      1. Kidneys are enlarged and pale

      2. Glomeruli appears large and relatively avascular

      3. The cells of the tubules appear granular and swollen

      4. Capillary damage occurs

   C. Signs and symptoms

      1. Glomerulonephritis may vary from a mild illness which may go unnoticed to a severe illness

      2. Illness having a sudden onset

      3. Severe Case:

         a. Headache

         b. High fever

         c. Malaise

         d. Hypertension

         e. Oliguria or anuria with hematuria

         f. possible cardiac decompensation leading to death

      4. Usual case

         a. Not critically ill

         b. Hematuria

         c. Mild edema around the eyes

    d. Temperature initially then drops to 100°

    e. Headache

    f. Anorexia

    g. Vomiting

    h. Constipation or diarrhea

    i. Hypertension may occur

    j. Urinary output is usually less than normal with albumin, red blood cells, and high specific gravity

D. Treatment and nursing care

1. Treat symptomatically

2. Bedrest for acute stage only

3. Prevent chilling of child and contact with others having respiratory infections

4. Vital signs are noted as ordered; the blood pressure is taken frequently because sudden changes may occur

5. Observe for cerebral manifestations

6. Record I & O accurately and may limit salt, fluids or protein. To be followed exactly

7. Daily weight

8. Note and record any periorbital edema

9. Even though ill, set limits with behavior

10. Penicillin usually given during the acute phase of streptococci found on pharyngeal culture

11. If blood pressure is elevated, indicative of vasospasm, cardiac failure or hypertensive encephalopathy may develop. Hypotensive drugs can be used to reduce the blood pressure.

12. Peritoneal dialysis is useful in correcting acidosis, electrolyte disturbances and uremia

13. Always have child empty bladder before peritoneal dialysis, so there is less chance of puncturing the bladder

14. Urine examined at frequent intervals (specific gravity, protein)

LEARNING ACTIVITIES - continued

E. Prognosis

1. Prognosis is usually good but it is unpredictable for the individual child
2. Second attacks are uncommon, but if healing is not complete another upper respiratory infection could cause symptoms of the glomerulonephritis again
3. The course of glomerulonephritis can be from ten days to a year
4. Chronic nephritis may develop in a small number of children, or they may die as a result of their illness

Review Exercise on Urilogical Conditions in Children

Directions: Complete the following by filling in the blanks.

1. Complete the following concerning the nephrotic syndrome.

etiology ________________________________

lab findings

____

clinical manifestations ________________________________

____

____

treatment ________________________________

____

nursing care ________________________________

____

2. Complete the following concerning glomerulonephritis.

etiology ________________________________

pathology ________________________________

clinical manifestations ________________________________

____

complications ________________________________

____

LEARNING ACTIVITIES - continued

treatment ______________________________

____

nursing care ______________________________

____

____

3. Why is the term "low salt diet" completely inadequate?

____

____

4. What does the specific gravity of urine indicate? ______________

5. What is considered a normal specific gravity of urine? ______________

6. What is the normal blood pressure reading for a 3 to 4 year-old child? (review page 92 in text)

____

ACTIVITY #14. The Handicapped Child

Directions: Read your text pages 500 - 501 and the following.

I. Speech

Speech is the thread which connects us to our fellow humans. It arises from the needs of our society. Speech has to be learned, it is not an instinct. Its proper development in a child requires good coordination of a number of functions. A lag in any one function may result in a delay in speech that sooner or later becomes evident to the parents and may become a problem.

The development of speech can be disturbed by mental or by physical disabilities or by environmental or emotional causes. It is a remarkably complex process — from the first birth cry to the controlled speech of an adult. The first weeks of life are filled with varied cries, which to the mother's sensitive ear may mean "I'm hungry!", "I'm wet", "I'm lonely".

After a few months, baby enters the babbling period and tries many vowels and consonants for the sheer joy of making and hearing them. Up to this point, children of all lands and languages make the same noises.

LEARNING ACTIVITIES - continued

A. Vocabulary building

1. During the second six months of life, infants become aware of the sounds about them and particularly the sound of language. They begin to select some of these sounds and try to imitate them. The first words they learn are nouns of one syllable, nouns like the sounds they have babbled (ma-ma, da-da). They soon learn that these sounds earn a hug, kiss, grin or smile. Speech is power.

2. Children next learn verbs that mean some form of action which they see about them and whose meaning they understand (i.e., give, take, run). Adjectives they learn from 18 months on. The adjectives they learn first are the ones they hear most often, "good" and "bad" because they hear them frequently. Adverbs they learn are "here" and "there". They learn pronouns last as these are confusing to them.

3. The size of children's vocabulary depends on their intelligence, whether they have had any incentive to learn, and whether they have been helped to learn.

    a. Nine months they can say "ma-ma and da-da"

    b. One year two or three more words

    c. 18 months to four years their vocabulary increases rapidly

    d. 2 years approximately 300 words

    e. 3 years approximately 900 words

    f. After they start school, their vocabulary increases rapidly

B. Delayed speech

1. Normal children should begin to speak by 15 months of age. If the child does not speak by 2 years of age, the cause for delay should be investigated. Some causes may be:

    a. Intelligence

    Children of low intelligence have a delay in speech. Also, the size of their vocabulary will be limited.

    b. Social and cultural environment

    Children of poorer social environments are delayed in speech because they often have poor models to imitate. Children in an orphanage or similar institutions may have extreme language retardation because adults seldom speak to them individually.

LEARNING ACTIVITIES - continued

c. Illness

Ill children who have had their needs answered before they ask as well as having fewer contacts with other children will have slower speech development.

d. Poor models

A poor model to imitate in speaking will lead to incorrect or retarded speech in the child.

e. Negativism

Children may decide not to talk if they are forced to talk. If the child has been laughed at for their poor or babyish pronunciation, their self-image is lowered and speech is slowed.

f. Deafness

One cannot imitate what one cannot hear, therefore, speech will not occur unless the child receives special training. Even with training the child will have a smaller vocabulary, poor pronunciation, and a peculiar flat tone of voice.

g. Sex

Boys are usually slower than girls in learning to talk. Boys have a smaller vocabulary and make more grammatical errors than girls.

II. Deafness

There are degrees of deafness. The deaf miss all the pleasures of sound and are without the natural means of communicating with others.

Unilateral deafness is different from bilateral deafness, and may not be suspected until accidentally the mother notices that the child hears only in one ear.

Deafness, whether partial or complete, may cause behavior problems and poor adjustment in group relations.

A. Signs of hearing loss

The following are some signs which may indicate a loss of hearing.

1. Before the age of one year

a. Difficult to awaken the child from sleep without touching or shaking

LEARNING ACTIVITIES - continued

- b. Baby responds only to comforting when being held
- c. The sound of speech fails to get a response (turning to look, startle, fright) from the child
- d. Shows little interest in musical toys or noisemakers unless they can be touched or held
- e. Ignores own name unless you motion or look at the child when you call
- f. Makes few or no babbling sounds or words

2. Between one and two years of age

    - a. The child not talking by the age of two
    - b. Ignores the ring of the telephone or the doorbell
    - c. Seems startled to look up and see you in the room
    - d. Uses gestures (pointing, pulling, touching, and so forth) to express needs
    - e. Attends to very loud, sudden sounds, fails to respond to ordinary speech sounds or to music
    - f. Tilts head or assumes unusual posture when listening
    - g. May be shy and withdrawn with others

B. Cause

1. Conductive deafness

    Congenital, owing to anomalies of the ear that interfere with the conduction of sound waves to the inner ear. Most common cause in children is excessive lymphoid tissue in and about the eustachian tube orifice which blocks the tube and interferes with proper middle ear ventilation. Have equal hearing losses over a wide range of pitches.

2. Perceptive deafness

    Sensory - neural Hearing Loss - Impaired hearing which may be caused by disorders of the inner ear, 8th (auditory) nerve, cerebral pathway, or auditory center. Causes include involvement of the structure by infectious disease such as meningitis, syphilis, typhoid, mumps, measles and hemolytic streptococcal infections; trauma of these organs from skull fracture; injury by such toxics as salicylates, alcohol, quinine or streptomycin. Common causes are exposure of the mother during the first trimester of pregnancy to viral diseases (german measles). Neonatal causes include anoxia during delivery, birth, trauma, use of forceps, Rh incompatibility. Have greater loss of hearing acuity in the high pitched tones.

LEARNING ACTIVITIES - continued

3. Central auditory disorders

   Children with this disorder may have normal hearing, but because of damage or faulty development of the proper brain centers, they are unable to use the auditory information they receive.

C. Diagnosis

Early diagnosis is essential. Hearing disorders can be diagnosed in the newborn, however, these techniques are not used on all children. Congenital deafness, if complete, is generally recognized in infancy. Unilateral or partial bilateral deafness may not be recognized until toddler period or even school age. With 70% or less of normal hearing, the child cannot hear all that the teacher or classmates say. The child needs special help in order to cover the same amount of material as other children.

D. Treatment

1. Members of the health team necessary for successful treatment of the deaf or partially deaf child are the physician, otologist, audiologist, speech therapist, possibly psychologist or psychiatrist, social worker, nurse, the child's family, and the child.

2. Treatment lies in the following areas:

   a. Training in understanding facial expressions

   b. Lip reading, may start as early as 2 1/2 or 3 years of age

   c. Hearing aid may be provided for the child at a very early age

   d. Special education may be necessary if there is a serious hearing loss

   e. Sign or finger language may be taught to supplement lip reading

   f. Treat as "normal" children in all respects

E. Nursing care

1. Observe and detect deafness early (newborn-school)

2. Always face the hearing impaired child

3. Articulate and modulate one's speech to the deaf child

4. DO NOT shout or exaggerate words

LEARNING ACTIVITIES - continued

5. Listen carefully when a deaf child speaks and watch the child's face in order to understand the speech better
6. Always be patient and tactful to the hearing impaired child as the child may be slow to understand.
7. Note respiratory infections early so they can be treated early.

F. Prognosis

1. Prognosis depends on the degree and nature of the structural defect and whether the child receives optimum treatment.
2. If the prognosis is defined in terms of ability to lead a normal life, then for most deaf children it is excellent.
3. If the child has other handicaps such as blindness, or low mentality, the prognosis is poorer for social adjustment.

G. Prevention

1. Prevention of infectious disease which is likely to involve the ear.
2. Prompt treatment of upper respiratory tract infections and ottitis media.
3. Impacted cerumen (earwax) impairs hearing and may lead to a lesion of the ear. Should be removed by a physician.
4. Treat sinus and infected lymphoid tissue in the nasopharynx promptly.
5. Do not use drugs that endanger the eighth nerve indiscriminately.
6. Teach children not to put anything in their ear.

H. Help for deaf preschooler

The John Tracy Clinic (806 West Adams Boulevard, Los Angeles, California 90007) is a private, nonprofit organization directed by Mrs. Spencer Tracy for the benefit of deaf or partially deaf children. Its excellent facilities include parent classes, a nursery school, counseling, teaching-training courses, research programs and consultations.

One of the clinic's most valuable contributions is the correspondence course available to parents of children with hearing handicaps. The correspondence course teaches the parents how to help the child through lipreading, auditory training, sense training, and speech readiness. The clinic also helps parents to find and utilize local facilities at the same time they are using the correspondence lessons. The clinic's information and support are provided without fee to families of deaf children anywhere in the world.

LEARNING ACTIVITIES - continued

Let's compare the child who hears with a deaf child:

AGE	HEARING CHILD	DEAF CHILD
18 months	25 word vocabulary. Understands many more words.	No vocabulary. No understanding.
2 - 3 years	Understands directions. Uses short sentences. Asks questions. Relates experiences. Understands the communication of adults. 500 word vocabulary.	Vocabulary of a few words. Yelling or screeching to express desires or wants.
3 - 4 years	Asks questions. Uses compound and complex sentences. Makes long sentences. Loves new words. Uses "what", "where", and "when" correctly.	First real language development. Uses some single words. Uses gestures. Points. Uses facial expressions. Nodding and shaking head for "yes and no".
4 - 5 years	Uses "why" and "how". Likes new and big words. Understands and uses past and future tenses well. 2,000 word vocabulary.	Still not enough intelligible speech to make wants known. Gestures used with single words. Likes to act out.
5 - 6 years	Talks all the time. Loves meanings of words. Defines words by explaining their uses. Grammar and structure are almost completely correct. 2,500 words plus vocabulary.	Wants to know the names of things.
6 - 7 years	Vocabulary that can be understood and used is almost 16,000 words.	Asks many questions.
7 - 8 years	Vocabulary of 22,000 words. Uses nouns, verbs, articles, pronouns, prepositions, and adjectives. 28% are nouns.	Uses articles, verbs pronouns, and nouns. 48% are nouns.
9 - 10 years	Sentence length is 11.5 words. Can use sign languages easily.	Reading vocabulary is 1/7 the size of the hearing child.
11 - 12 years		Reading skills test show as much as 4 years slower compared to hearing child.

LEARNING ACTIVITIES - continued

AGE	HEARING CHILD	DEAF CHILD
12 - 13 years		Stumbling over reading words learned by hearing children before 7 1/2 years of age.
14 - 15 years		Sentence length is about half as small as the hearing child. Use of abstraction is same as a 9-year-old.
17 years	Vocabulary ranges from 80,300 words and more.	Markedly inferior in sentence length, arrangement, abstract thought, word order. Writing deals with the concrete. Reading vocabulary is smaller than a third grader.

In terms of overall achievement tests, government statistics show the mean level of achievement for deaf students leaving school or graduating at age 16 or older is 4.7 (fourth grade, seventh month). Parents all over the country are becoming very dissatisfied with the education being received by their deaf children. Rather than curriculum or methodology, the problem usually is a lack of clear communication. In the absence of communication, learning cannot take place.

III. Blindness

A. Newborns are usually far-sighted at birth. Their corneas are almost fully developed but their eyeballs and lenses are not. Initially they have peripheral vision until their central vision develops at about 6 weeks of age. By 3 months they can follow a moving object with both eyes. The two eyes should work together. If they do not, the child may have strabismus. The deviation of one eye from parallelism is also associated with strabismus. Also the child may have amblyopia which is reduced or dimness of vision.

B. Cause

1. May be born blind due to congenital rubella, or may acquire blindness from retrolental fibroplasia (use of 40% O_2 for a prolonged period causing retina detachment).

2. Trauma, infection, during delivery, ophthalmic neonatorum

   a. Newborn acquires infection from birth canal

   b. Congenital syphilis

LEARNING ACTIVITIES - continued

C. Symptoms

1. Children having visual difficulty

   a. May rub their eyes frequently

   b. May squint or frown when trying to see at a distance

   c. May hold their picture books too close to their eyes when trying to see

2. The legal definition of blindness is based on a visual acuity of at best 20/200 in the better eye after correction. Partially blind children have a visual acuity between 20/70 and 20/200 in the better eye after appropriate correction. Children, like adults, have myopia (near-sightedness), hyperopia, (far-sightedness), or astigmatism (variation in the refractive power of the various meridians of the eye resulting in a distorted image).

D. Treatment

1. Physical condition treated

   Restore or improve sight or to prevent further impairment of vision

2. Enroll in school for the blind or regular school with special class to emphasize auditory instructions and the development of reading skills through touch perception by the braille system.

3. For those not totally blind, books are printed with extra large type so that eye fatigue is minimized.

4. Include child as one of the normal group as much as possible to promote normal social and emotional development.

5. Blind children need to handle as much of their environment as practical and build up concepts which other children acquire by sight.

6. Parents tend to overprotect but the child needs the freedom to build up skills and experience.

E. Nursing care

1. Early detection of impaired vision or of blindness is essential for the treatment and education of the child.

2. Blind children need happiness as all children do and detect tnis through the inflection of the voice. Your voice needs to reflect positive moods.

3. Speak to the blind child before touching the child.

4. Always identify yourself as the blind child cannot see your name tag.
5. Prepare the blind child for procedures and, if possible, let the child handle the equipment.
6. Provide sensory stimulation and instruct parents in the need for body contact.
7. Talk to the child and encourage the development of other senses.
8. The blind child's needs are the same experiences of the sighted school child.

F. Prognosis

1. The outcome of treatment varies with every child, and no general statement can be made.
2. The prognosis for the blind child will be improved because of great strides in the prevention of blindness from gonorrhea and syphilis and improved care of premature infants with fewer cases of blindness due to retrotental fibroplasia.
3. The child born blind can usually make a happier adjustment to the handicap than a child who becomes blind later in life.
4. The totally blind find it more difficult to function in society. Their success depends to a great extent upon their early training.

IV. Cerebral Palsy

Cerebral palsy is a term used to designate a group of non-progressive disorders of motor function caused by the pathology of the motor control centers of the brain. It is characterized by paralysis, weakness, incoordination, and ataxia. In addition to neuromotor dysfunction, cerebral palsy may include learning difficulties, psychological dysfunction, sensory defects, convulsions, and behavioral disorders of organic origin. The problems range from mild to severe.

A. **Diagnosis - early signs indicating the possibility of cerebral palsy include:**

1. Any asymmetry in contour or motion
2. Difficulty in sucking and swallowing
3. Hyperirritability or listlessness
4. Repeated vomiting
5. Cyanosis or pallor

LEARNING ACTIVITIES - continued

6. Failure to gain weight

7. Stiffening, arching, twitching, and or convulsions

B. In addition, the physician should be notified if there are any marked delays in normal growth and development patterns such as achievement of head control, reaching for objects, sitting alone, standing, crawling, walking, etc. In other children the diagnosis is not made until the toddler period, when the question of the child's normal mental ability arises.

C. Incidence

Cerebral palsy is the major crippling disorder of childhood, the incidence being estimated from 100 to 600 cases per 100,000 children. There are almost 300,000 affected children in the United States making cerebral palsy one of the most common crippling conditions of childhood.

D. Cause

1. Specific cause is not clear

2. Heredity

3. Prenatal anoxia

4. Prenatal infection

5. Developmental malformation of the cerebrum

6. Postnatal anoxia

7. Narcosis at birth

8. Erythroblastosis fetalis with resulting kernicterus and intracranial hemorrhage

9. Damage which may occur in infancy or the toddler period includes:

   a. Lead poisoning

   b. Head injury with subdural hematoma

   c. Brian damage due to febrile illness

   d. Encephalitis

   e. Meningitis

   f. Hydrocephalus

10. In many children no single cause factor can be established.

LEARNING ACTIVITIES - continued

E. Types

1. Two types of cerebral palsy account for about 75% of all cases.

   a. Spasticity - tension in certain muscle groups. Stretch reflex is present in the involved muscles. The part of the body commonly affected are the legs, which are in a position of scissoring (the child's legs are crossed and the toes are pointed, the fist clenched, the forearm flexed, the upper arm pressed against the wall of the chest, and the head is extended and the back arched. Some children's swallowing is also affected. They may have paraplegia, or quadriplegia. Unusual distribution includes monoplegia, one limb is involved, or triplegia, both legs and one arm are involved.

   b. Athetosis - involuntary or excessive motion (fine wandering movements) which interferes with normal precision of movement.

2. Remaining 25% are characterized by one of the following types.

   a. Ataxia - disturbance of the sense of balance and posture. Children with this type walk as though they are inebriated.

   b. Rigidity - resistance in the extensar and flexar muscles.

   c. Tremor - fine muscular movements with a rhythmic pattern.

   d. Atonic - without tone.

F. Treatment

1. Aim is habilitation - help the child handicapped since birth to make total use of the abilities they have developed and to help establish capabilities that the normal child develops automatically.

2. Care includes planning for special problems connected with:

   a. Respirations - due to cerebral lesion or mucus, suction mucus and turn frequently

   b. Feeding - difficulty in sucking and swallowing - feed slowly; teach to feed self

   c. Relaxation - frequent rest periods with few stimuli

   d. Play - gentle without excitement; involving only slow changes in stimulation

   e. Education - includes training in self-care and social relations, as well as formal education

LEARNING ACTIVITIES - continued

G. Nursing care

There is no single dramatic remedy available to "cure" brain damage and many of these individuals will have a life-long need for specialized services. However, there is no child for whom "nothing" can be done. While it may not be feasible to operate, to brace, or to provide direct therapy, there is no child who cannot benefit from good nursing care. Even if a custodial institution is the most feasible placement, every aspect of training in the activities of daily living the child can master will enable the child to lead a fuller life. A child whose limbs are put through a full range of motion daily will have less tendency for contractures. The body need not be crippled and distorted. A child who can be helped to sit or to stand with specially designed chairs and tables has a broader environment to facilitate learning than one who is in a crib. Oral hygiene and proper feeding facilitates better nutrition. One never can determine the ultimate potential of a malnourished individual. All of these are nursing procedures. Other members of the cerebral palsy team can be valuable consultants and guides. With their help, many a nurse has aided the family and/or the child to achieve a happier, more comfortable existence. The child has a basic need for acceptance, for love from his parents, peers, and others; for exploration of his environment, for play, for learning as other children do and for the feeling of status which comes through gradually increasing independence. This childs' needs are seldom satisfied. He is therefore likely to be chronically emotionally depressed.

H. Prognosis

The prognosis depends upon the severity of the physical condition, the child's mental capacity, and the treatment available. Children with normal intelligence, who receive adequate care, can improve to the extent where they can care for themselves and succeed in a vocation suited to their limitations. (I.Q. - 90-109 normal - less than average represents retardation of varying degrees.)

Review Exercise on the Handicapped Child

1. Describe the differences between the hard of hearing child and the deaf child.

____

____

2. Write a brief description on the following defects:

A. Conductive hearing loss ______________________________

B. Sensory-neural (a perceptive hearing loss) ______________________

3. The most common cause of conductive hearing impairment is:

____

LEARNING ACTIVITIES - continued

4. List four (4) causes of perceptive or sensory-neural hearing losses.

   A. ____________________

   B. ____________________

   C. ____________________

   D. ____________________

5. List three (3) reactions that may alert the nurse to a possible hearing defect.

   A. ____________________

   B. ____________________

   C. ____________________

6. Persons with perceptive nerve impairment generally have a greater loss of hearing acuity in the (high - low) ____________________ - pitched tone.

7. Write a brief description about the problem of the child who is believed to have been born deaf.

   ____

   ____

8. When is the ideal time to teach lipreading? ____________________

9. Write the legal definition of blindness.

   ____

10. What is meant by the term "20/20 vision"? ____________________

11. Define the following:

    Myopia ____________________

    Hyperopia ____________________

12. Define the following:

    Astigmatism ____________________

    Strabismus ____________________

LEARNING ACTIVITIES - continued

13. List four (4) behavior patterns which migh indicate a visual defect.

A. ______

B. ______

C. ______

D. ______

14. Write a reason why the Snellen chart is preferred to picture charts for eye examinations.

______

15. List and describe three (3) plans for education of the partially sighted child.

A. ______

B. ______

C. ______

16. Write some advantages of having the blind child in close contact with sighted children.

______

17. Define the term cerebral palsy.

______

______

18. List other manifestations that may occur in conjunction with the motor defect in cerebral palsy.

______

______

19. Prenatal causes of cerebral palsy include:

A. ______

B. ______

LEARNING ACTIVITIES - continued

20. Adverse factors at birth causing cerebral palsy include:

21. Postnatal causes of cerebral palsy include:

22. Describe the following types of cerebral palsy:

    Athetoid:

    Spastic:

    Ataxia:

    Rigidity:

    Mixed types

23. What is meant by "scissoring"?

24. List the principles used to teach the child who has cerebral palsy the activities of daily living.

LEARNING ACTIVITIES - concluded

25. List some special problems one needs to include when planning care for the child with cerebral palsy.

____

____

____

26. What is the prognosis for the child with cerebral palsy?

____

____

____

____

____

NURSING CARE OF CHILDREN

Module E - The Preschooler

RATIONALE

Bitter are the tears of a child;
Sweeten them.
Deep are the thoughts of a child;
Quiet them.
Sharp is the grief of a child;
Take it from him.
Soft is the heart of a child;
Do not harden it.

Lady Pamela Glenconner, "A Child"

The nurse who has learned to respect the child as a person and who has developed the ability to sense needs and who can meet those needs with kindness and firmness does much to develop a sense of trust in the child — helping the child to grow to maturity.

During the preschool period the child is entering increasingly into the activities of the outside world. The preschooler has more initiative in exploring the environment as well as his/her own body.

PERFORMANCE OBJECTIVES

To the instructor's satisfaction you will:

1. Identify normal growth and development of the preschooler.
2. Identify the physical, intellectual, and emotional aspects of the preschooler.
3. Identify signs and symptoms of conditions common to the preschooler.
4. Identify appropriate nursing care to meet the needs of the preschooler.

CLINICAL OBJECTIVES

In the clinical area and to the instructor's satisfaction the student will:

1. Differentiate the normal growing and developing preschooler with one who has problems in growth and development.
2. Utilize and identify appropriate nursing care for the illnesses and communicable diseases common to the preschooler.
3. Assess the interaction between parents and their preschooler.
4. Exercise accident prevention that is appropriate to the developmental stage of the preschooler.

LEARNING ACTIVITIES

Directions: The material needed to complete this module is found here and in Marlow's Textbook of Pediatric Nursing. If you have questions, ask your instructor.

ACTIVITY #1. Normal Growth and Development of the Preschooler

Directions: Read the following descriptions for the growth and development of the preschooler from three to five years. This information relates to the normal average preschooler and will vary from child to child. The psychosocial crisis according to Erikson for this state is "sense of initiative vs. guilt." Read Chapter 19, pages 623-627.

I. Three Years

A. Physical Growth

1. Goes up stairs alternating feet
2. Rides a tricycle
3. Builds tower with 9 blocks; imitates construction of 3-block bridge
4. Copies a circle and a cross from a picture
5. Jumps from a low step
6. Pours fluids from a pitcher well
7. Hits large pegs in pegboard with a hammer
8. Washes hands and brushes teeth
9. Helps dry dishes and dust
10. Dresses with help; can unbutton front buttons
11. Feeds self well

B. Social Development

1. Vocabulary of about 900 words
2. Uses what language he/she knows fluently; talks in sentences of six syllables
3. Counts 3 objects correctly or can repeat 3 numbers
4. Knows own age and sex
5. Plays simple games in "parallel" with others
6. Understands the meaning of taking turns

LEARNING ACTIVITIES - continued

7. Has little understanding of past, present, or future.

The three-year-old generally conforms and tries to please others although the child may be jealous of siblings. The child is attentive to the spoken word and able to accept suggestions. The "trusting threes" are usually a delightful time for the entire family, probably because the child has learned to say yes as easily as no!

II. Four Years

A. Physical Growth

1. Uses scissors to cut out pictures
2. Throws ball overhand
3. Climbs and jumps well
4. Copies a cross and a square from a picture
5. Imitates construction of 5-block tower
6. Draws a man with a head and 2 to 4 parts
7. Names the longer of two lines

B. Social Development

1. Vocabulary of 1500 words or more
2. Exaggerates, boasts, and tattles on others
3. Talks with an imaginary companion
4. Tends to be selfish and impatient
5. Aggressive physically and verbally
6. May run away from home
7. Takes pride in accomplishments
8. Repeats 4 numbers; is learning concept of numbers
9. Counts 4 coins or objects
10. Names one or more colors correctly
11. Has poor space perception
12. Plays with several children and begins social interaction and role playing (cooperative play)

LEARNING ACTIVITIES - continued

The "frustrating fours" is a stormy age for both child and parents. Full of questions and talkative, the four-year-old has few manners and tends to show a temper. The child exaggerates, but does not understand the concept of lying and finds it hard to say "I'm sorry". The child enjoys going on neighborhood errands, enjoys being silly with friends, but behavior may include hitting, biting, and throwing rocks.

III. Five Years

A. Physical Growth

1. Jumps from 3 to 4 steps
2. Roller skates
3. Skips
4. Puts toys away
5. Uses a hammer to hit a nail
6. Prints first name and maybe other words
7. Draws fairly recognizable picture of a person
8. Draws a triangle from a copy
9. Can wash without wetting clothes
10. May be able to tie shoelaces

B. Social Development

1. Names 4 colors
2. Repeats sentence of 10 syllables
3. Counts 10 coins or objects
4. Vocabulary of approximately 2100 words; talks constantly
5. Asks questions about meanings of words
6. Asks searching questions
7. Knows the names of the days of the week and knows a week as a unit of time
8. Can put together a rectangular card which has been cut diagonally into 2 pieces

LEARNING ACTIVITIES - continued

The "fascinating fives" is usually a comfortable age for everyone as the child begins to take more responsibility for her actions. The five-year-old has developed a personality which gives an indication of what she will be like when she is older. She is serious about herself and her abilities. Friendly, dependable and cooperative, she likes praise, likes to feel independent, and is interested in adult activities.

Personality Development

Directions: Read the following information on personality which portrays the preschooler in a period of initiative vs. guilt. Read your text, pages 604-605, 608-609.

I. Three to Six Years (Oedipal Phase)

   A. Physiological development for sex organs

   B. Increase in sensations that produce pleasure. These sensations also relieve anxiety (masturbation)

   C. Reflections in play:

      1. Girls: dolls, cooking, and imitating mother

      2. Boys: sports and indentification with father

   D. Curiosity about sex and their bodies

      1. Exploration of themselves and others

      2. Becomes aware of social barriers and taboos as the parent disciplines the child

      3. Parents suddenly become concerned about behavior where before the same behavior was "cute"

      4. Becomes aware of the difference between sexes

      5. Becomes aware of mother and father engaging in "secret activity;" this produces anxiety in child because he is not included

      6. Curiosity about pregnancy and birth misconceptions occur; hence, the evolvement of fantasies to relieve anxiety

   E. Male Role

      1. Wants to do what father does

      2. Romantic feelings beome more intense toward mother

      3. Sees father as a rival for mother's affections

LEARNING ACTIVITIES - continued

4. Father is still bigger and so is a threat

5. Fears father-rival figure and has hostile feelings with resultant guilt feelings

6. Begins to idolize father; becomes more dependent and trys to please him

7. Sexual inhibitions help form superego

F. Female Role

1. Girl sometimes changes her love object from mother to father

2. Displays hostility toward mother which produces guilt

3. Dependent on mother hence ambivalent feelings result as she wants to be loved by father but protected by mother

4. Resolves conflict by sublimating her feelings or transferring them to other adult women. By participating in domestic play activities she can identify with mother and form the basis of her later feminine role

By the end of this period the boy no longer wants to take his father's place; he simply wants to be like his father. The girl no longer wants to take her mother's place; she wants to grow up to be like mother. The child becomes a friend to both parents, not regarding either one as a specific love object. The family then becomes a meaningful love object.

II. Adult Personality Traits Which are Traceable to Oedipal Period

A. Fixation in the boy or girl role as a child results in an ineffective or impossible adaptation to mate

B. Confusion in boy-girl role results in men accepting feminine roles and women accepting masculine roles

C. Overwhelming guilt results in punitive superego and inability to enjoy pleasurable experiences

D. Girls with poor identification with mother are sometimes not able to follow in role of housewife in later life; boys are sometimes unable to support family or assume role designated by society as male role

Review Exercise Over Growth and Development of the Preschooler

Directions: Complete the following by filling in the blanks.

1. The preschooler is most interested in (parallel, group) ____________ play.

2. The preschooler of age ___ is most likely to run away.

LEARNING ACTIVITIES - continued

3. According to Erikson, the preschooler must learn __________ or he learns __________.

4. What is the Oedipal phase? ____

____

5. How does the male child see his father during the Oedipal phase; his mother?

____

____

____

6. How does the female child see her father during the Oedipal phase; her mother?

____

____

____

MEMOS FROM YOUR CHILD

1. Don't spoil me. I know quite well that I ought not to have all I ask for -- I'm only testing you.
2. Don't be afraid to be firm with me. I prefer it; it makes me feel more secure.
3. Don't let me form bad habits. I have to rely on you to detect them in my early stages.
4. Don't correct me in front of people, if you can help it. I'll take much more notice if you talk quietly to me in private.
5. Don't make me feel my mistakes are sins. It upsets my sense of values.
6. Don't protect me from consequences. I need to learn the painful way sometimes.
7. Don't be too upset when I say, "I hate you". It isn't you I hate, but your power to thwart me.
8. Don't take too much notice of my small ailments. Sometimes they get me the attention I need.
9. Don't nag. If you do, I shall have to protect myself by appearing deaf.
10. Don't make rash promises. Remember that I feel badly let down when promises are broken.

LEARNING ACTIVITIES - continued

11. Don't forget that I cannot explain myself as well as I should like. This is why I'm not always very accurate.

12. Don't tax my honesty too much. I am easily frightened into telling lies.

13. Don't be inconsistent. That completely confuses me and makes me lose faith in you.

14. Don't put me off when I ask questions. If you do, you will find that I stop asking and seek my information elsewhere.

15. Don't tell me my fears are silly. They are terribly real and you can do much to reassure me if you try to understand.

16. Don't ever suggest that you are perfect or infallible. It gives me too great a shock when I discover that you are neither.

17. Don't ever think it is beneath your dignity to apologize to me. An honest apology makes me feel surprisingly warm toward you.

18. Don't forget I love experimenting. I couldn't get on without it, so please put up with it.

19. Don't forget how quickly I am growing up. It must be very difficult for you to keep pace with me, but please do try.

20. Don't forget that I can't thrive without lots of understanding love, but I don't need to tell you, do I?

ACTIVITY #2. Overview of the Preschooler

Directions: Read the following.

Emotional Development of the Preschooler

This child is imaginative and creative. Since the child cannot really participate in the adult world, he pretends and has imaginary friends.

The central problem is to learn about the world and other people. The preschooler must learn to assert her will in such a way that she will not feel too guilty. If she has the knowledge and ability to solve the problem, she will develop a sense of initiative comfortably controlled by conscience. If she fails, she will emerge from this period feeling overwhelmed and with a sense of guilt.

Any environmental changes may have a traumatic effect on the child. She may mistake these changes as a loss of parental affection.

Needs of the Preschool Child

1. Security and independence
2. Parental love and understanding

LEARNING ACTIVITIES - continued

3. Needs to use physical expression of hostility

4. Verbal interaction so the child learns to express herself so that she can communicate with others

5. Gains from the knowledge he needs to grow up

6. Limits on her behavior - which are consistently maintained. This also gives her a basis for prediction of the reaction of other people to what she does

Mental Development

1. Preoperational stage (2 to 7 years) - From sensorimotor (guided by sensory and motor events) to symbols and conceptional plane. (Use of symbol to represent a real thing - no real "intelligent" behavior

2. Reasoning is faulty - example - "Today is Thursday because my mom always go to the store on Thursday"

3. Cannot follow rules - makes up own rules

4. Believes objects have a life of their own - flowers hurt if you pick them

5. Confuses the real physical events with the dream and psychological events

6. The whole world is designed to satisfy human needs

7. No life perspective - understands past, present and future but no understanding of time and what will happen in the future is still vague

Anxiety in the Preschooler

Causes: Fear of being deserted by parents. Fear of loss of parental love.
Fear of being punished for misdeeds or for thoughts which one should not have. Fear of physical injury.

Special Problems of the Preschool Child

1. Thumb sucking

    a. Habit itself not dangerous but the response of parents and other adults can be

    b. Parents may feel they have failed

    c. Parents handle by punishment, love, and ridicule - inconsiderate of the child

    d. Causes may be:

        (1) child feels unloved

LEARNING ACTIVITIES - continued

(2) child feels in danger

(3) child feels he is not good enough

(4) expression of dissatisfaction with life

(5) too little sucking pleasure during infancy

e. Possible solution - Note occasions when child sucks thumb and provide more love and security for the child at such times

2. Food likes and dislikes

Relatively slow growth so less interested in eating. Does have "food jags" and certain likes and dislikes. Total calories is slightly more than toddler but not high due to slow growth. The preschooler is much more interested in his environment than in food.

Possible Solutions

a. Quiet environment (eats better if all enjoying meal)

b. Few distractions

c. Rest period before meals

d. Use of pretty dishes

e. Comfortable table and chair

f. Small servings

g. Attractively served food

h. Finger foods

i. Eliminate between meal nibbling

j. Good role models with good eating habits to follow or imitate

3. Enuresis

An involuntary discharge of urine or wetting after control should be established. (3 years of age)

Cause

a. Lack of training

b. Too early or too severe training

c. Over training

LEARNING ACTIVITIES - continued

Solution:

a. Do not make issue out of toilet training

b. If at night give less fluid in evening

c. Problem ususally more psychologic than physical - create relaxed atmosphere

d. Nocturnal enuresis, nightime bedwetting, after 3 or 4 years may be due to environmental factors such as dark halls, etc

e. May be due to physical problem and does need medical assistance

f. If related to emotional problems, child has to be motivated or all efforts will be without cause

4. Encopresis

Child has uncontrolled bowel movements beyond the time when control is expected and has no physiologic cause.

Cause:

a. Emotional disturbance

b. Too rigid toilet training

c. Lack of good mother-child relationship

Solution:

May need psychiatric treatment for unresolved emotional problems.

5. Selfishness

No child born with ability to share - only slowly learns the joy of giving or even sharing with others.

Adults can help children to learn to share with others if they let them have possessions which both recognize as their own. Group play also encourages the habits of sharing.

6. Bad language

Children learn improper language just as they learn other words in their vocabulary.

Children may use these words on purpose to annoy adults and enjoy the sensation they create. The less attention paid to the use of such language, the sooner it will cease.

LEARNING ACTIVITIES - continued

7. Hurting others

The child that repeatedly hurts others is a troubled child. She must not be allowed to hurt others. She may be jealous or frustrated and her behavior may result from her mental state. She needs to feel secure within her limits beyond which she is not allowed to go.

The child that hurts others is not punished by having the same injury inflicted on him which he inflicted on another child. He is not forced to apologize to the child whom he hurt. Under no circumstances is he made to feel rejected by the adult who is in charge of the children. The adult takes positive action in situations in which the child is likely to hurt others. The child is given physical outlets in his play through which to work off some of his excessive energy and relieve his feeling of frustration. Reinforce the positive.

8. Destructiveness

Much of the child's accidental destructiveness is the result of boundless energy and endless curiosity. Material objects mean more to adults than children. To avoid accidental destruction put up valuable objects. Provide space for the child to play without danger of the child breaking or harming furnishings. Help the child learn the value of possessions. The progress however is slow.

The intentionally destructive child is usually an unhappy child unable to control feelings of jealousy, helplessness, aggression or anger. The child may feel unloved, disliked by peers, or bored by inadequate play things. The cause of such destructiveness must be found and appropriate treatment given. One should avoid scolding or punishing. Help the child direct these energies into appropriate activities.

Play

__Directions:__ Read your text pages 627-629, then read the following.

Importance of Play

Play for the preschooler serves as a means by which the child's personality develops, the child learns to deal with reality and learns to control feelings.

Beginning of Cooperative Play

The preschooler gradually shifts from solitary and parallel play to simple cooperative play. As the child plays he begins to interact with other children and enjoys social play. At intervals the child will still resort back to solitary play. By the end of the preschool period there is more organized social play.

Characteristics of Play

Play is the business of children.

a. Play is very active - hammer - run - climb

LEARNING ACTIVITIES - continued

b. Imitate the social life of adults

c. Highly imaginative

NOTE: Children need to be encouraged to express their own creativity rather than fitting them within a mold of adult expectation.

ACTIVITY #3. Care of the Preschool Child

Directions: Read your text by Marlow, pages 631-635, then read the following.

Physical Care

1. Gaining competency in self care
2. Feeds self with little spilling
3. Can dress and undress
4. Can wash hands, face and brush teeth
5. Slow and clumsy and continues to need cuddling and reassurance

Sleep

1. Needs own room or portion of own room to call own.
2. Play more important than sleep - doesn't really know when rest or sleep is needed.
3. Children over four years of age usually battle a nap but should have rest period in darkened room.
4. Naps may be eliminated before kindergarten.

Safety Measures

1. Accidents in this age due to increased initiative and desire to imitate adults.
2. Have increased freedom with immature understanding.
3. Reinforce safety measures continuously in terms the preschooler can understand.

Health Supervision

1. Check-up every 6 months including visual and auditory tests. Appropriate immunizations.
2. Snellen eye chart-the "Big E" poster used whereby the child need not be able to read but can just point a hand in the direction she/he sees the big E on the chart.

LEARNING ACTIVITIES - continued

7a. What is encopresis? ______________________________

____

b. What might cause encopresis? ______________________________

____

c. What is a possible solution to encopresis? ______________________________

____

8a. What is enuresis? ______________________________

____

b. What are the possible causes of enuresis? ______________________________

____

c. What are the possible solutions to enuresis? ______________________________

____

9. What purpose does play serve for the preschooler? ______________________________

____

10. What behavior of the preschooler leads to accidents? ______________________________

____

ACTIVITY #4. Respiratory Conditions of the Preschooler

Directions: Read your text pages 649-652, then read the following.

Tonsillitis

Cause: Invasion of the tonsillar tissue by an infective agent, bacterial or non-bacterial.

Incidence: The condition is quite common in children beyond the age of infancy. Chronic tonsillitis may become a problem in the preschool child.

LEARNING ACTIVITIES - continued

Dental Caries

Caries of the deciduous teeth commonly begin between the ages of 3 and 6 and spread rapidly. Regular visits to the dentist and daily care of the mouth is necessary.

Review Exercise on Overview of the Preschooler and Care of the Preschooler

Directions: Complete the following by filling in the blanks.

1. What advise would the nurse give to the parents of a preschooler who is masturbating?

   ____

   ____

2. What advise would the nurse give to the parents of a preschooler who has imaginary playmates?

   ____

   ____

3. List four (4) needs of the preschooler.

   a. ______________________________

   b. ______________________________

   c. ______________________________

   d. ______________________________

4. Is the preschool child upset by being left at a sitter's? Discuss your answer.

   ____

   ____

   ____

5. List some possible solutions to coping with the dislikes a child may have for food.

   ____

   ____

   ____

6. What might be the results if the child is taken off the bottle at a very early age?

   ____

   ____

LEARNING ACTIVITIES - continued

Types

A. Acute tonsillitis is an inflammation of the tonsils and the throat.

Symptoms

1. Fever
2. Difficulty in swallowing

Nursing care and treatment

1. Bedrest
2. Adequate fluid intake
3. Soft diet
4. Aspirin may be ordered by the doctor
5. Antibiotic as ordered.
6. Throat irrigations may be ordered

Complications

1. Cervical abscess
2. Peritonsillar abscess (Quinsey)
3. Meningitis

B. Chronic tonsillitis is characterized by repeated persistent attacks of sore throat.

Symptoms

1. Chronic fatigue
2. Low-grade fever
3. Failure to gain weight
4. Dryness of throat
5. Offensive breath

Treatment

Tonsillectomy if chemotherapy fails and the physical deems it necessary.

LEARNING ACTIVITIES - continued

C. Tonsillectomy and Adenoidectomy (T & A)

Not all children need to have their tonsils and adenoids removed. These tissues act as a defense against occurrence and spread of respiratory infections. A conservative approach to the problem is usually the rule especially since antibiotic treatment for respiratory infections has eliminated the need for tonsillectomy adenoidectomy.

Indications

1. Recurrent or persistent sore throat

2. Recurrent or persistent otitis media

3. Obstructed breathing or swallowing due to enlarged adenoids

4. Hypertrophied adenoid tissue may also interfere with air passage through the nose and obstruct the eustachian tube

5. Infection near the tonsils such as retrotonsillar and peritonsillar abscesses and suppurative cervical adenitis

Age for operation

Postponed as long as possible

1. Condition may correct itself in a year or more

2. The operation is psychologically more traumatic to a preschool child because of fears prevalent in this age group

Place for operation

1. Inpatient basis in the hospital.

2. Ambulatory surgical unit.

Advantages to short term hospitalization

1. Child away from home only a short period of time resulting in less trauma and family disturbance

2. Lower cost to the patient's family

Time for operation

Anytime during the year. Fourteen to 21 days after an acute infection has subsided.

Preoperative preparation

1. Tell child of operation

2. Tell child throat will be sore

LEARNING ACTIVITIES - continued

3. Tell child of preoperative medication
4. Tell child he/she will be NPO and why
5. Have permit signed by parents
6. Lab work done - especially clotting and bleeding time
7. Check for loose teeth to prevent aspiration
8. Have child void, just prior to going to surgery

Postoperative care

1. Prone or side lying position to facilitate drainage of secretions and prevent aspiration of vomitus
2. Observe carefully for several hours
3. Take B/P and pulse
4. Note degree of restlessness
5. Frequency of swallowing which can be an indication of bleeding
6. Vomiting (2, 3, 4, 5 and 6 are signs that may indicate hemorrhage)
7. Bedrest for the day
8. When awake ice chips or popsicles small amounts every 15 to 30 minutes
9. Ice collar and or Tylenol for discomfort. (Aspirin is often avoided as it decreases clotting time)

Complications

1. Hemorrhage most common
2. Septicemia, lung abscess and pneumonia are also possible complications

Discharge

Instructions to parents regarding discharge:

1. Symptoms indicating the need to call a physician
    a. Earache
    b. Frequent swallowing
    c. Vomiting blood

LEARNING ACTIVITIES - continued

2. Suggestions for care:
   a. Quiet for a few days
   b. Fluids and foods
   c. Protect from infection
3. Instructon regarding medication ordered
4. When to return for a follow-up examination

Review Exercise on Tonsillectomy and Adenoidectomy

Directions: Complete the following by filling in the blanks.

1. Why might T & A be postponed? ____________________

____

2. What is most common complications of a T & A? ____________________

____

What symptoms would indicate these complications? ____________________

____

3. What symptoms would indicate the need for a T & A? ____________________

____

4. What position is the child placed in following a T & A and why? ____________________

____

____

ACTIVITY #5. Common Communicable Disease

Directions: Read your text pages 653-665, then read the following.

Definitions

Communicable Disease - An illness caused by an infectious agent or its toxic products and transmitted from one person to another by direct contact with an infected person, by indirect contact with material containing the causative agent, or by inanimate object in the environment.

LEARNING ACTIVITIES - continued

Acquired immunity - maybe either

Active - May be acquired by having had the disease or by inoculation with antigens such as dead organisms, weakened organisms, or toxins of organisms.

Passive - Relatively short-lived and is acquired by transfer of antibodies from mother to child or by inoculation with serum which contains antibodies from immune persons or animals. Used to modify a disease.

Because of the preschool childs' expanding world, with participation in activities and conditions unlike those at home, the child frequently comes in contact with organisms which cause communicable disease.

Study the following information on following charts concerning common communicable diseases.

COMMON COMMUNICABLE DISEASES *

DISEASE	SYMPTOMS	INCUBATION	IMMUNITY	COMMUNICATION	COMPLICATIONS
Chickenpox (Varicella) **Methods of Spread** Airbone-droplet infection, direct or indirect contact, dry scabs are not infectious	Mild fever followed in 36 hours by small raised pimples which becomes filled with clear fluid. Scabs form later. Successive crops of pox appear. Malaise	10-21 days **Cause** Virus	None - Immune after one attack	One day before onset to 6 days after first vesicles appear	Usually not serious. Trim fingernails to prevent scratching. Dilute alcohol or a solution of baking soda and water may ease itching.
German Measles (3 day Measles, Rubella) **Method of Spread** Direct contact by contaiminated dust particles in air. From secretion of nose and throat of infected person.	Mild fever, sore throat, or cold symptoms may precede fine rosecolored rash. Closely grouped which fades on pressure. Enlarged glands at back of neck and behind ears.	14-21 days **Cause** Virus	Vaccine now available. (A simple blood test can determine whether an individual has had rubella. Adequate fiter is 1-10.)	During a period of symptoms and 5 days after appearance of rash.	Not a serious disease, complications rare; give general good care and keep child quiet. Avoid exposing any women who is or might be in the early months of pregnancy unless she is sure she has had the disease. .
Measles (Rubeola) **Method of Spread** Direct contact and airbone by droplet and contaminated dust.	Mounting fever; Photophobia dry cough; running nose and red eyes for 3-4 days before small redish brown rash starts at hairline and spreads down in blotches; fade on pressure. Small red spots with white centers in mouth. (Koplik Spots) (Koplik spots may occasionally be seen before rash.	10-12 days **Cause** Virus	Vaccine can be given to provide immunity. A baby not vaccinated, if exposed, can be given gamma globulin to lighten or prevent measles. Encephalitis may occur.	From 4 days before to 5 days after rash appears.	May be mild or severe with complications of a serious nature; follow doctor's advise in caring for child with measles, since it can be a treacherous disease. If other children who have not had the disease are exposed, protective innoculation for them. Keep in bed - dimly lighted room - Tepid baths and smoothing lotions relieve skin itching.

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*Adapted from United States Department of Health, Education, and Welfare; Infant Care, 196[illegible], pp. 80-82 and Your Child from One to Six, 1962, pp. 82-83

DISEASE	SYMPTOMS	INCUBATION	IMMUNITY	COMMUNICATION	COMPLICATIONS
Mumps (Infectious Parotitis) Method of Spread Direct or indirect contact with salvary secretion of infected persons.	Fever; headache; vomiting; gland near ear and toward chin at jawline ache and these develop painful swelling either unilaterally or bilaterally. Other parts of body may be affected also.	14-21 days Cause Virus	Vaccine now available. Disease is usually milder in childhood than in later years.	One to 6 days before first symptoms appear until all swelling disappears.	Keep child in bed until fever subsides. Keep child indoors unless weather is warm. Foods containing acid may increase pain. Complications of meningo-encephalitis, inflammation of ovaries or testes, or deafness may occur.
Roseola	High fever for 2 or 3 days which then falls to normal before the appearance of red spots of varying sizes on the back and stomach or sometimes the whole body. Children may not seem very ill despite high fever (103-105 F$^{\circ}$) but he may convulse.	Not fully Cause Virus	None - Usually affects children from 6 months to 3 years of age.	Until the child seems well.	No special measures except rest and quiet. Force fluids during fever.
Hemolytic Streptococcal infection (streptococcal sore throat and scarlet fever, scarlatina) Method of Spread Droplet infection or direct and indirect transmission may occur.	Sometimes vomiting and fever before sudden and severe sore throat. If followed by fine rash on body and limbs, it is called scarlet fever.	2-5 days Cause Beta Hemolytic streptococcus Group A Strain	None Antibiotics may prevent or lighten an attack if doctor feels it is wise.	Onset to recovery	Responds to antibiotics which should be continued for full course to prevent serious complications. Bed rest. Complications of rheumatic heart pneumenia, fever may occur. Increase humidity for severe infections.
Whooping Cough (Pertussis) Method of Spread Direct contact or droplet spread from infected person.	At first seems like a cold with a low fever and cough. At end of second week spells of coughing accompanied by a noisy gasp for air which creates the "whoop".	5-21 days Usually around 10 days Cause Bordetella pertussis	Give injections of vaccine to all children in infancy. If an unvaccinated child has been exposed, the doctor may want to give a protective serum promptly.	4-6 weeks	Child needs doctor's supervision throughout the illness. Protect from secondary infection. Warm humid air. Very serious during infancy because of complications of bronchopneumonia.

LESS COMMON INFECTIOUS DISEASES *

DISEASE	SYMPTOMS	INCUBATION	IMMUNITY	COMMUNICATION	COMPLICATIONS
Infectious Hepatitis Method of Spread Oral Contamination by intestinal excretions; contaminated food, milk or water	May be mild with few symptoms or accompanied by fever, headache, abdominal pain, nausea, diarrhea, and general weariness. Later yellow of eyes (jaundice), urine dark and bowel movements chalklike.	15-50 days Cause Virus	Injection of Gamma globulin, gives temporary immunity if child is exposed.	Few days before to one month or more after onset.	May be mild or may require hospital care. Requires special disinfection of needles. Stool precautions. High protein low fat diet. Can be complicated by liver damage.
Infectious Mononucleosis (glandular fever) Method of Spread Direct contact or by droplet spread from infected person.	Sore Throat, swollen, lymph glands in the neck and else where, malaise, fatigue, headache, somtimes a rash over whole body and jaundice appearance, low persistent fever.	Probably 4-14 days or longer Cause Virus	None	Probably 2-4 weeks but mode of transmission is uncertain (probably oral route)	Keep in bed while feverish, restrict activity thereafter. Antipyretic for fever. May be complicated with enlarged spleen which can rupture.
Bacterial Meningitis Meningococcal Meningitis Method of Spread Direct contact or droplet spread from infected person.	May be preceded by a cold; headache, stiff neck, vomiting, high temperature with convulsions or drowsy stupor; fine rash with tiny hemorrhages into the skin. Opisthotonos and general muscular rigidity are seen. Spinal fluid is cloudy and purculent.	2-10 days Cause Meningococcus Neisseria intra cellularis	None	Until meningococci are no longer present in mouth and nasal discharge.	Immediate treatment is necessary. Hospital care. Continued treatment with antibiotics as long as doctor advises. IV theraphy, close observation of convulsions and any change in condition. Isolate patient.
Aseptic Meningitis Method of Spread Direct contact via fecal oral and pharyngeal-oropharyngeal routes.	Onset fairly acute. Infants are irritable, older children have headache, hyperesthesia fever, nausea, and vomiting are common; convulsion rare, mild self limited disease. Neck and spinal rigidity occurs. Spinal fluid contains many cells.	3-5 days Cause Group A Viruses Group B Viruses ECHO Virus	None	Not really known. Probably 2-3 days before to several days after onset.	No specific treatment no isolation of patient aspirin, sponging, cool room are helpful, no complication usually.

*Adapted from United States Department of Health, Education, and Welfare: Your Child from One to Six, 1962 pp. 84-85.

DISEASE	SYMPTOMS	INCUBATION	IMMUNITY	COMMUNICATION	COMPLICATIONS
Hemophilus Influenzae Meningitis (Especially from 3 months to 3 years of age. Method of Spread Direct contact or inhalation of infected droplets.	Same as Meningococcal Meningitis	1-7 days Cause Hemophilus Influenzae Type B	None	As long as pathogen is present in nasopharynx. No more than 24 hrs. after effective microbial therapy.	Antibiotics same as meningococcal meningitis
Pneumococcal Meningitis Method of Spread Direct contact or inhalation of infected droplets.	Same as Meningococcal Meningitis	1-7 days Cause Diplococcus Pneumoniae especially types: III, V, and XIV.	None	As long as pathogen is present in nasopharynx. No more than 24 hrs. after effective microbial therapy.	Penicillin relapses may occur. Same as meningococcal meningitis.
Encephalitis (Inflammation of the brain) Method of Spread Virus in birds transmitted from bird to bird by mosquitoes and mites. Transferred to man by mosquito bites. Occurs with infectious disease cannot be transferred to others.	Onset abrupt with vomiting fever, stiff neck, convulsions coma, symptoms may appear early or late. MILD SYMPTOMS include; headache, stiff neck, fever, delirium. MORE SEVERE SYMPTOMS; convulsions, coma, paralysis. Clinical manifestation may be produced by toxin during the course of illness. Child may very irritable, have muscle twitching or convulsions and abnormal ocular movements.	Depends on type Cause Virus	None	Depends on type: 1. Virus Encephalitis 2. Postinfectious occurs with infectious diseases; measles, German measles, mumps, smallpox and following vaccination pertussis and following immunization. 3. Toxic encephalitis occurs with acute infections or with lead poisoning.	No specific treatment can be given. Symptomatic care adequate nutrition and control of convulsion are essential. Nursing Care provide a quiet environment, aspiration of nasopharyngeal secretions, gavage or IV feedings, 0_2, oral hygiene, good skin care, catheterization and enemas. Board-spectrum antibiotics, to prevent secondary infection. Help patient to understand need for prolonged convalescence.

DISEASE	SYMPTOMS	INCUBATION	IMMUNITY	COMMUNICATION	COMPLICATIONS
Smallpox (Variola) Method of Spread Direct or indirect contact. Possible air-borne. Crusts are infectious.	Sudden fever, chills, head and backache. Rash which becomes raised and hard later blisters and scabs. Mucus membranes of mouth and eyes involved. Prostration or convulsions may occur.	12 days Cause Virus	Vaccination Practically perfect protection. Vaccination only if going to an exposed area.	Until all scabs disappear and 1 to 2 days before symptoms.	Doctor's care necessary. No treatment except anibiotics for secondary infections. Eye care and oral hygiene. May be complicated with larynagitis, bronchopneumonia and encephilitis.
Polio Infantile Paralysis or Poliomyelitis Method of Spread Oral contamination by pharyngeal and intestinal excretions.	Slight fever, general discomfort. Headache, stiff neck, stiff back are initial symptoms with URI and vomiting. CSF shows an increase in protein and in the number of cells, but fluid is rarely cloudy.	5-14 days Cause Virus Type 1, 2 and 3	Give all children Sabin Series	During period of infection, latter part of incubation period and the first week of acute illness.	Hospitalization. Symptomatic treatment. Avoid over-fatigues, change position frequently, and good body alignment. Moist heat to alleviate muscular pain. STOOLS contain the virus. They should be considered infectious. Bulbar poliomyelitis therapy is directed at suctioning of the pharynx and postural drainage to prevent aspiration of secretions, feeding by gavage, IV fluids, tracheotomy use of respirator, and 0_2.
Tetanus (lockjaw) Method of Spread Organism in soil anaerobic. Enter body through a wound.	Acute or gradual onset muscle rigidity and spasm, hyper-irritability, convulsions, headache, fever. Inability to open mouth is present. Backward arching of the back develops.	3-21 days Causes Clostridium tetani bacillus	Give immunization usually part of DPT	Not communicable from man to man	Always clean wound thoroughly place in dark room. Avoid stimulation that may cause spasm. Muscle relaxant, sedative and tranquillizing meds will help. Tracheotomy may be necessary. I.V. therapy, 0_2 respiratory suction, gavage feeding and foley.

DISEASE	SYMPTOMS	INCUBATION	IMMUNITY	COMMUNICATION	COMPLICATIONS
Diptheria Method of Spread Droplets from respiratory tract of infected person or carrier.	Local and systemic manifestations. Membrane over tissue in nose or throat at site of bacterial invasion. Hoarse brassy cough with stridor.	2-6 days or longer Cause Corynebacterium diphtheriae (bacillus)	Immunization part of DPT	Several hours before onset of disease, until organisms disappear from respiratory tract. Complications vary with severity from circulatory to cardiac failure, or pneumonia. Degenerative changes of kidney may also occur.	Immediate administration of diphtheria antitoxin. Strict bedrest cleansing throat, gargles, observe for respiratory obstruction 0_2 and trach maybe necessary.

LEARNING ACTIVITIES - continued

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LEARNING ACTIVITIES - continued

LEARNING ACTIVITIES - continued

Review Exercise Over Communicable Disease

Directions: Complete the following as instructed.

1. Define the following terms. Use your module plus a Taber's Cyclopedia Medical Dictionary.

   a. antibody ____________________

   b. antigen ____________________

   c. antitoxin ____________________

   d. epidemic ____________________

   e. erythema ____________________

   f. passive immunity ____________________

   g. active immunity ____________________

   h. incubation period ____________________

   i. macule ____________________

   j. papule ____________________

   k. pustule ____________________

   l. toxin ____________________

   m. toxoid ____________________

   n. vaccine ____________________

2. For the diseases listed, complete the following:

   a. Encephalitis

      infectious agent ____________________

      source of infection ____________________

      clinical manifestations ____________________

      ____

      nursing care ____________________

      ____

      complications ____________________

LEARNING ACTIVITIES - continued

b. Infectious Hepatitis

infectious agent ________________________________

source of infection ________________________________

clinical manifestations ________________________________

____

nursing care ________________________________

____

____

c. Infectious Mononucleosis

infectious agent ________________________________

source of infection ________________________________

clinical manifestations ________________________________

____

nursing care ________________________________

____

____

d. Infectious Parotitis (mumps)

infectious agent ________________________________

source of infection ________________________________

clinical manifestations ________________________________

____

nursing care ________________________________

____

complications ________________________________

LEARNING ACTIVITIES - continued

e. Pertussis (whopping cough)

infectious agent ______________________________

source of infection ______________________________

clinical manifestations ______________________________

____

nursing care ______________________________

____

complications ______________________________

f. Poliomyelitis

infectious agent ______________________________

source of infection ______________________________

clinical manifestations ______________________________

____

nursing care ______________________________

____

complications ______________________________

g. Rubeola (measles, red measles, regular measles)

infectious agent ______________________________

source of infection ______________________________

clinical manifestations ______________________________

____

nursing care ______________________________

____

complications ______________________________

LEARNING ACTIVITIES - continued

h. Rubella (German measles, three day measles)

infectious agent ______________________________

source of infection ______________________________

clinical manifestations ______________________________

____

nursing care ______________________________

____

complications ______________________________

i. Bacterial Meningitis

infectious agent ______________________________

source of infection ______________________________

clinical manifestations ______________________________

____

nursing care ______________________________

____

____

j. Streptococcal Infections

infectious agent ______________________________

source of infection ______________________________

clinical manifestations (in scarlet fever) ______________________________

____

nursing care ______________________________

____

complications ______________________________

LEARNING ACTIVITIES - continued

k. Tetanus (lockjaw)

infectious agent ________________________________

source of infection ________________________________

clinical manifestations ________________________________

____

nursing care ________________________________

____

____

l. Aseptis Meningitis

infectious agent ________________________________

source of infection ________________________________

clinical manifestations ________________________________

____

nursing care ________________________________

____

complications ________________________________

m. Varicella (chickenpox)

infectious agent ________________________________

source of infection ________________________________

clinical manifestations ________________________________

____

nursing care ________________________________

____

complications ________________________________

LEARNING ACTIVITIES - continued

n. Variola (smallpox)

infectious agent ______________________________

source of infection ______________________________

clinical manifestations ______________________________

____

nursing care ______________________________

____

complications ______________________________

3. List two (2) reasons for isolating patients.

a. ______________________________

b. ______________________________

ACTIVITY #6. Strabismus (Squint, Cross-Eye)

Directions: Read your text page 667-668, and the following.

Etiology

Strabismus is a condition which the extra ocular muscles do not balance. The child seems to be looking in two directions at once.

Significance

1. One eye is generally not used as much as the other and therefore poor central vision in that eye results from disease.
2. There is absence of fusion resulting in double images (diplopia).
3. Emotional problems occur when other children make fun of the childs deformity.

Cause

1. Congenital or familar
2. Caused by acute illness such as encephalitis or diphtheria
3. Paralysis of certain muscle
4. Muscles do not function together

LEARNING ACTIVITIES - continued

Symptoms

1. Not able to describe what is seen
2. Tilts head to bring images together
3. Closes one eye to block out an undesired image
4. May appear clumsy and may stumble
5. Unable to pick up objects with accuracy

Treatment

1. Monocular Strabismus - one eye deviates permanently and the other eye is always used.

   Treatment - placing patch over good eye to improve vision in the other eye. Surgery may be necessary.

2. Alternating Strabismus - either eye may be used for fixation on an object while the other eye deviates.

   Treatment - vision develops more or less equally in both eyes but surgery is usually necessary.

3. Accommodative Strabism - is dependent on the relationship between accommodation and convergence of the eyes.

   Treatment - use of corrective glasses and sometimes occlusion of the eye may be necessary.

Nursing care

1. Help parents and child understand importance of eye exercise and wearing glasses.
2. Teach child how to protect glasses while wearing them.
3. Child scheduled for operation should be prepared by:
   a. Knowing about surgery
   b. Knowing that an eye or eyes will be covered with a patch or patches
   c. Know that dressings on eyes only temporary and the child will be able to see again
   d. Encourage parents to stay with child

LEARNING ACTIVITIES - continued

Prognosis

Earlier the treatment is given the better are the results and personality disorder prevented. If visual acuity has been affected, permanent reduction of sight may be expected.

ACTIVITY #7. Chronic Conditions of the Preschooler

Directions: Read the following.

Anemia

Etiology

Condition in which the concentration of red blood cells and a hemoglobin in the circulating blood is below the accepted levels which is 11 gm. per 100cc. Anemia is the most frequent disorder of the blood during childhood.

Causes

1. Blood loss
2. Drug poisoning
3. Deficiency in the diets
4. Chronic infection
5. Too rapid destruction of red blood cells (hemolysis)
6. Inadequate rate of blood formation (hypoplasia)

Symptoms

1. Lassitude
2. Easy fatigability
3. Pallor
4. Weakness
5. Irritability
6. Sluggish mentality

Diagnosis

Laboratory study of the blood cells

Careful history of the child

Bone marrow studies, if necessary

LEARNING ACTIVITIES - continued

Treatment

Depend on the cause

Anemia due to poor nutrition treated with dietary means plus iron and vitamins supplement. However, those progressive or terminal condition make the situation somewhat different.

Prognosis

Varies with cause. When anemia is fatal, it is usually because of weakness of the heart and its inability to maintain normal circulation of the blood (cardic failure).

Sickle Cell Disease

Directions: Read your text pages 463-464, and the following.

Etiology

This disease is so named because the red blood cell resembles a sickle. These malformed cells clump together and obstruct capillaries, thereby causing what is known as a crisis in the disease. Capillary obstruction leads to anoxic changes which cause further sickling and thus still further obstruction in the blood vessels.

Incidence

Confined almost entirely to the Black race and is hereditary. Sickle cell anemia occurs in approximately 1 of every 500 blacks in this country.

Types

Severe - persistent hemolytic anemia with periodic episodes of painful crisis. The sever types occurs when the condition is inherited from both parents - homozygous.

Asymptomatic - has only the trait. This occurs when the condition is inherited from only one parent.

Symptoms

Onset may be sudden or insidious.

Sudden Sickle Cell Crisis

a. Severe pain in abdomen and legs

b. Abdomen have board rigidity

c. Extreme pallor

d. Fever

LEARNING ACTIVITIES - continued

- e. Vomiting
- f. Severe flank pain with hematuria
- g. Convulsions
- h. Paralysis

Insidious onset

- a. Weakness
- b. Dyspnea
- c. Palpitation
- d. Pain and tenderness of skin

Diagnosis

Laboratory examination of the blood

Sickle cell trait

Red cell count normal

Hemoglobin normal

Sickle cell disease

Hemoglobin 6 to 9 gm per 10 ml

Treatment

- a. Supportive measures
- b. Blood transfusion
- c. Protect against infection
- d. Transfusion
- e. 0_2 if hypoxia

Any number of changes such as emotional changes, infection, climate and elevation can precipitate a crisis.

LEARNING ACTIVITIES - continued

Nursing care

a. Assist the physician with treatment

b. Educate family about the disease:

   1. Clinical manifestations (fatigue, anorexia, pains in abdomen, epistaxis, jaundice)

   2. The child should consume huge quantities of liquid and have well balanced diet

   3. The child should be treated immediately when infection occurs

c. Family needs opportunity to express feelings about the disease-supoort

d. Prevent infection

Prognosis

As the child grow older crisis occurs less frequently, and prognosis depends on the severity of disease. Death is usually the result of severe anemia or intercurrent infection

Leukemia

Directions: Read your text pages 673-682, and the following.

Etiology

Leukemia is a malignant neoplasm involving all blood-forming organs and causing an over-production of any one of the types of white blood cells. Normal white blood cell count is 5,000 to 10,000 per cubic millimeter, in leukemia it may be more than 50,000 per cubic millimeter.

Incidence

Cancer is outranked only by accidents as a cause of death in childhood, and leukemia is the principal type of cancer of children. The incidence of leukemia in children is found to be highest between the ages of three and eight years. More than 50 percent of cases of leukemia in children occur before five years of age, the peak of incidence occuring at three to four years of age.

The disease has no relation to racial, geographic, or regional factors to socioeconomic status.

Cause

The cause is unknown.

LEARNING ACTIVITIES - continued

Pathology

Immature white blood cells (leukocytes) multiply rapidly, but do not develop into or function as manture cells. Anemia develops rapidly in the early states of leukemia. Blood platelet production is impaired and therefore, the blood platelet level is greatly reduced, creating a tendency to bleeding and hemorrhage. The lymph nodes, liver and spleem enlarge. Areas of ulceration and secondary infection may be found anywhere in the body. Renal and osseous changes are seen (RBC are produced in the bone marrow, thus giving rise to changes in the bones with leukemia).

Symptoms

1. Widespread petechiae appear
2. Pallor
3. Tendency to bruise easily (due to decreased platelets)
4. Vomiting
5. Weight loss
6. Weakness
7. Fatigue
8. Low-grade fever

Diagnosis

Diagnosis is made by:

- a. Observations of the above symptoms
- b. A blood count which shows that immature cells are present in the bloodstream
- c. Microscopic study of the bone marrow

Treatment

1. No known cure - treatment is palliative
2. Supportive - Antibiotics and blood transfusions
3. Specific with the use of Chemotherapeutic drugs
    - a. Corticosteriods - ACTH - Cortisone - prednisone

      Action: The drug causes lyse of lymphatic cells

LEARNING ACTIVITIES - continued

Side Effects: Causes Cushing syndrome (moon face, fluid retention, hypertension and personality changes)

b. Amethopterin (Methtrexate) - this is an Antimetabolite

Action: This is a folic - acid antagonist, interfers with folic acid metabolism and thus disrupts nucleic acid synthesis in the process. Cancer cells proliferate rapidly and therefore require exceptionally high nucleic acid synthesis.

Side Effects: Side effects of oral and GI ulceration, hemorrhage, chills, fever and hematologic depression. Also can cause alopecia and skin reactions such as rashes and acne.

c. 6 - Merccaptapurine (Purinethol) this is an antimetabolite

Action: This drug blocks the incorporation of purene into nuceic acids, thus interfering with cell production.

Side Effects: Toxic effects are interference with hemotoporesis and myelo toxicity.

d. Vincrestine (oncovin) - this is an antimetabolite

Action: The drug has the ability to destroy both normal and abnormal cells.

Side Effects: Produces sensory and neuromuscular toxicity. As well as constipation and alopecia.

e. Cyclophosphamide (cytoxan) - alkylating agent of the nitrogen mustard group.

Action: Has the ability to destroy cells.

Side Effects: Nausea, vomiting and anarexea, alopecia, depression of the bone marrow may occur.

f. Daunarubicin (daunomycin) - cytoloxic antibiotic.

Action: Interferes with the biosynthesis of cellular nucleic acids.

Side Effects: Bone marrow damage and complications involving the cardiopulmonary system. Can cause G I disturbances, skin rash, and alopecia.

g. L - Asparaginase - an enzyme - used experimentally

Action: It kills leukemia cells by preventing them from incorporating L-Asparagine, an amino acid essential for protein sysnthesis. Normal cells make their own.

LEARNING ACTIVITIES - continued

Side Effects: Potentially dangerous blood coagulation and liver-tissue abnormalities.

h. Thioguanine and cytosine arabinaside (cytosar) are newer drugs used for the treatment of leukemia

Action: Both drugs effect marrow suppression.

Side Effects: Nausea and vomiting since these drugs work independently of one another, they are used sequentially.

Nursing care

1. Comfort and support to patient and family
2. Child should not be treated too permissively or be overindulged.
3. Care based on symptoms present
4. Be aware of and observe for side effects of drugs.
5. Protect from exposure to infection
6. Frequent rest periods due to anemia
7. Adequate fluid intake
8. I & O to monitor the intermittent GI disturbances and to evaluate dehydration.
9. Observe for hemorrhage - including petechiae and eccyhmotic areas. This is due to low platelet count.
10. Oral hygiene is needed and must be done with utmost care to prevent trauma to the sore bleeding gums.
11. Sheepskin may be used to prevent break down of the skin.
12. Accurate charting.
13. Observe constantly for indications of central nervous system involvement.

Terminal stage

1. Stay with the child continuously
2. Give sedatives as needed
3. Mouth and lip moist
4. Nose clear

LEARNING ACTIVITIES - continued

5. Bathe skin and turn as becomes restless

Prognosis

Without treatment the course of acute leukemia is usually rapid with death occurring in about 6 months. With treatment, acute leukemia may be changed to a chronic form, and the child may survive from two to three years or in some cases even longer.

ACTIVITY #8. Hemophilia

Directions: Read your text pages 682-686, and the following.

Etiology

Hemophilia is a congenital defect in the blood-coagulating mechanism leading to severe bleeding.

Incidence and types

Hemophilia is one of the oldest hereditary diseases known to mankind. There are defects in one or more factors in the blood. Hemophilia A is a deficiency of factor VIII and is inherited as a sex-linked recessive trait. Though it appears only in males, it is trasmitted by symptom - free females.

Hemophilia B is a deficiency of factor IX (Christmas disease) an accounts for about 15% of the hemophilias. It is a sex-linked recessive trait appearing in male offspring of female carriers.

Hemophilia C is a deficiency of factor XI and exists as an autosomal dominant trait, appearing in both males and females.

Diagnosis

The disease may be diagnosed in early infancy, when the newborn bleeds from the umbilical cord or after circumcision. As children grow older and become more active, the condition is apparent, for even a slight injury produces continued bleeding.

Pathology

The disease is characterized by a tendency to prolonged bleeding caused by an extremely delayed clotting time. Normal clotting occurs in three to six minutes; hemophiliac blood may require an hour or more to clot.

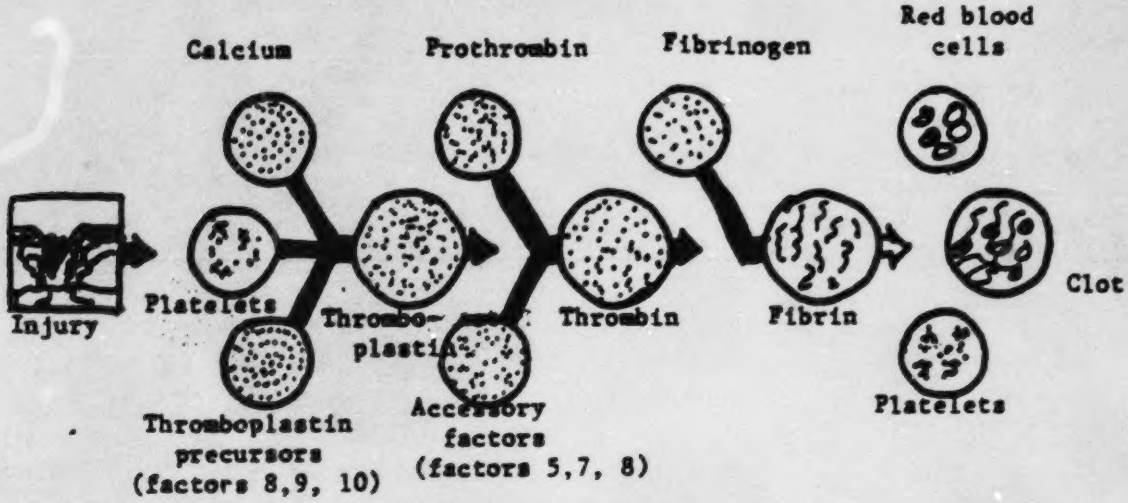
The mechanism of clot formation is complex. In a simplified form, it can best be described as occurring in three stages.

1. Thromboplastin is formed through plasma-platelet interaction.
2. Prothrobin is converted to throbin.

LEARNING ACTIVITIES - continued

3. Fibrinogen is converted into fibrin by thrombin.

Fibrin forms a mesh that traps red and white cells and platelets into a clot, closing the defect in an injured vessel. A deficiency of one of the thromboplastin precursors may give rise to hemophilia.


Calcium
Prothrombin
Fibrinogen
Red blood cells
Injury
Platelets
Thrombo-plastin
Thrombin
Fibrin
Clot
Platelets
Thromboplastin precursors (factors 8,9, 10)
Accessory factors (factors 5,7, 8)

formation of a blood clot

Symptoms and treatment

1. Hemorrhage frequently into the joint (hemarthrosis) knees, elbows, and ankles are common.

2. Hematuria may occur.

3. Intracranial hemorrhage may occur.

4. Nose bleeds.

Treatment need

1. Sedatives or narcotics, immobilization with splints or traction, and the application of cold to the part.

2. Bed cradle to keep the weight of blankets off the affected part.

3. Careful handling is necessary to prevent further bleeding. Replacement therapy to increase its level of factor VIII in the plasma is necessary to stop the hemorrhage.

4. Care must be taken that the circulatory system is not overloaded by giving excessive fluid.

LEARNING ACTIVITIES - continued

5. Choice of an analgesic for use with the hemophiliac is important. Do not use an analgesic that may affect another component of the patient's coagulation mechanism. Aspirin and phenylbutazone (Butazolidin) inhibit normal platelet function and may prolong bleeding time. Drugs that may be used safely are acetaminophen or meperidine.

General treatment

Bleeding from any source in a hemophiliac, however, indicates that the deficient factor is below critical level; therefore, transfusion of whole blood, fresh frozen plasma, or plasma concentrate is necessary.

Nursing care

1. Many of the children are on home management programs, thus the nurse needs to teach the child and/or parents or both:
    a. How to give IV factor VIII.
    b. How to monitor transfusions.
    c. Venipuncture techniques.
    d. How to prevent injuries.
    e. Emotional support.
2. During periods of hospitalization due to bleeding the nurse needs to:
    a. Handle the child carefully.
    b. Give medication orally if at all possible. If meds given IM, special care needs to be given in rotating sites, giving medication slowly, and applying pressure following the injection for at least five minutes.
    c. Constant emotional support.

Prognosis

Prognosis is uncertain. Death may occur from intracrainal hemorrhage or exsanguination from a serious hemorrhage elsewhere in the body.

ACTIVITY #9. Idiopathic Thrombocytopenic Purpura

Directions: Read your text page 686, and the following.

Etiology

Purpura is associated with a deficit in the number of circulating blood platelets.

LEARNING ACTIVITIES - continued

Incidence

Greatest incidence in the age group between three and seven years. It is uncommon in black children. The most frequent form of the disease during childhood is the acute, self-limited type.

Symptoms

Acute - sudden onset after mild respiratory infection or measles.

a. Fever

b. Prostration

c. Characteristic spontaneous small hemorrhages into skin, mucous membranes (rash like)

d. Large ecchymoses

e. Epistaxis

f. Hematuria

Chronic - onset gradual and infrequent in children.

a. Prolonged bleeding following injury.

b. Bruising easily

c. Periods of good health alternate with periods of excessive bleeding.

Laboratory findings

a. Platelet count is always below 100,000 per cubic millimeter of blood (normal is between 200,000 and 500,000).

b. Bleeding time is prolonged - its clotting time is normal, but the clot fails to retract in the usual manner. Bone marrow is studied to rule out leukemia.

Treatment

a. Supportive therapy

b. Transfusions of whole blood

c. Antibiotic therapy to treat infections

d. Bed rest for moderate or severe bleeding

e. Well-balanced diet

LEARNING ACTIVITIES - continued

f. Vitamin thearpy

g. Cortisone used in some cases to control bleeding.

h. Spleenectomy may be performed if the disease continues for six to twelve months or if hemorrhaging is severe (spleen destroys platelets so it is removed).

Nursing care

a. Protect the child from falls and trauma

b. Regular diet

c. General care

Prognosis

About 2 per cent of the children with purpura have the chronic form, which is refractory to therapy. Prognosis is excellent in about 99 per cent of cases.

ACTIVITY #10. Death and Dying

Directions: Read the following.

Death is not a sudden end for relatives and friends. Realization of loss, acceptance, and adjustment is a prolonged and painful process, but this normal grieving process is necessary for maintaining one's mental health and should not be interrupted — nor can it be accelerated. Knowing the basic personality structure of the people involved aids in understanding how they cope with stress. The death of a member of the family often reveals underlying feelings, relationships, and problems that have not previously been evident. No one can be sure how we will react to the death of a loved one. However, grief — like tears — is normally self-limiting.

The grief response is influenced by a number of factors. The more dependent the relationship, the more difficult the task of resolving the loss. Other factors include:

1. The age of the deceased and the mourner. Children have less capacity to resolve a loss than an adult.

2. The number and the nature of other relationships.

3. The number and the nature of previous grief experiences, since losses tend to be cumulative in effect.

4. The degree of preparation for loss. Death may come as an intruder or as a welcomed visitor.

5. The manner in which death occurs.

LEARNING ACTIVITIES - continued

6. The physical and psychological health at the time of loss. Often family members are not only emotionally exhausted, but are worn out physically.

If the family's relationship with the nurse was good during the terminal illness, the nurse can assist the family in their grief with confidence and acceptance.

Grief has been defined as emotional suffering. The smooth, more or less taken-for-granted aspects of living are interrupted and an awareness of dependency on the lost object develops. The grieving person attempts to deny the reality of the event. In the depth of loss and helplessness, the person sends out various behavioral cries for help. The person attempts to reconstitute in his mind a representation of the lost person to replace that which no longer exists in the real world.

A Grieving Parent's Response to Death

Initially, the response is shock and disbelief. The grieving parent feels stunned and dazed. Often the numbing effect is expressed with words such as "I can't feel." Essentially, this is the emotional inability — for a time — to accept, realistically, the fact of death of the child. It is less devastating than sudden and complete recognition. The nurse may explain that this is one way nature has of helping people to withstand the first shock of grief.

If the child has been unconscious for some time, the sudden release of the tension of "not knowing" may cause the parents and the relatives to respond inappropriately. Regardless of the setting, a place that is comfortable and private for the frightened, angry, or grieving family is indispensable. Hysteria may occur. Indeed the family may think they must scream. If so, kindly remind them of the other patients and calm them — it's like setting limits on childish behavior. This reaction may also happen in people who feel guilty. Some authorities feel relatives should not be told the child has expired, but, rather that they should be told in terms which will help them to face the reality of death, such as death, dying, and dead.

Within minutes or hours after the death of a child, there is an acute and increasing awareness of the anguish of the loss, expressed by some as a painful emptiness in the chest. In the flood of grief, anguish and despair as the parent realizes the child is dead very little reassurance can easily be given. The mourners are sorry the child can no longer share the joys of life, and also feels sorry for themselves that they must go through life alone. Children especially can feel deliberately deserted or rejected at the death of a brother or a sister.

"There must have been something I could have done," is often heard and often indicates guilt. The fact that they cannot make up in distressing -- and the distress is greater according to the degree the mourner feels he/she has been unfriendly, hateful, or unjust. (Thus, an excessive display of grief may reflect deep feelings of guilt.) This realization is quite shattering, as in cases of the chronically invalid child who has been an emotional and a financial burden.

Anger is another common feeling evoked. Fear often gives rise to anger. Or, the patient may be angry at Fate — "Why did this happen?"

LEARNING ACTIVITIES - continued

Restitution, the work of mourning, starts with the funeral rituals. These rituals serve to emphasize clearly the reality of death. For most, some comfort is obtained from a funeral service — it's consolation, a regularized, and formal way of meeting one's obligations to the dead.

Mourning patterns are not too definite in our society. Some of our more definite mourning practices, such as wearing black have been discarded. For some this makes it difficult to express their feelings about the loss even to themselves. Yet, for others the disappearance of formal practices has lifted a burden — especially for those who experienced difficulty in trying to behave as they were expected. There is no universal or absolute answer as to what is appropriate behavior, unless perhaps that which comes "naturally" is appropriate behavior. To maintain one's mental health, weeping may be more desirable than too much suppression of feelings; however, neither extreme is desirable.

With mourning comes the deep feeling of the essential aloneness of man. For fear, emptiness, and depression there is no better antidote than love, companionship, assurance, and support from relatives and friends. Individuals differ, but in most instances the temptation to shut ourselves off from others to grieve alone should be avoided. This is the principle behind the much talked about Irish Wake (celebration after the funeral services). Here sadness and sorrow may be expressed, but not in an atmosphere of mourning.

Resolving the loss begins with attempting to deal with the painful void. The first emphasis in grieving is placed on the personal experience of loss but later more emphasis is placed on the child who died. The grieving parent may now be more aware of his or her own body and his or her needs.

Idealization may take months. Recurring thoughts and reminiscences about the deceased serve to establish a distinct mental image of the lost child. The grieving parent may even wish to be dead in order to be with the child.

During the phase of idealization, the best help that can be given is to listen, understand, and support the mourning parent. This is a crucial period and the mourner may become fixed here. Sometimes if the mourner receives no reward for fixing on losses and if it is not reinforced, the mourning behavior is reduced. Or, the mourner may regress and depend on others for all decisions. Depression or other symptoms of mourning persist. Depression is emotional paralysis and is as disabling as physical paralysis. Depression of three to six months — or even a year — is appropriate, but deep depression lasting longer than a year after a death is inappropriate.

Finally, as psychic dependence on the deceased diminishes, new interests begin to develop and love is transferred. Mourning takes approximately a year, the clearest evidence of successful healing being the ability to remember comfortably and realistically both pleasure and disappointments of the lost relationship.

LEARNING ACTIVITIES - continued

With this background of grief and grieving, a few practical considerations which the nurse should be aware of are grouped as follows:

1. News of death or impending death is best communicated to family groups rather than to the individual family member alone. The family should be assured privacy.
2. Requests to see a dying or a dead child should not be denied on grounds that it may be too upsetting or will disturb floor routine.
3. When confronted by angry, bitter, and accusatory relatives, remember that their emotions may be justified or that they may be attempting to deal with their own aggression and guilt toward the dying child.
4. Knowing that shock and disbelief may be the first response, anticipate that some persons may behave in a grossly disturbed manner. Understand these are ways to protect themselves from being overwhelmed. Encourage the bereaved to cry or to express themselves. Actively help relatives to a place where they can grieve privately.
5. Knowledge of the cultural, religious, and social customs of mourners (no matter how strange or abhorrent they seem) gives us an opportunity to help.
6. Realize that many fall ill following a serious loss of a loved one. Do not fail to recognize the loss to the survior after fatal accidents.
7. The grieving infant and child is quite common (i.e., separation, anxiety, etc.) but with the dying child the nurse needs wisdom and compassion. The nurse must recognize the parent's need to care for the child and have the skill to see when the parent needs to be relieved. The parents may want to share their feelings and thoughts with the nurse.

A Child's Response to Death

Children need special help in coping with death. Our own underlying feelings toward death communicate themselves to youngsters even though we are able to say the "right" words. Rarely can grief be hidden from youngsters — and the gap between what is said and done may confuse and distress the child more than straight forward expressions of the deep sense of loss felt. Maria Nagy, in Budapest, did a study of youth and felt there were three stages in youths' ideas about death.[1] She concluded that in ages three to five, they denied death as a natural and final process, comparing it instead to a sleep or a journey from which the deceased would come back. They seem callous — showing immediate sorrow and soon forgetting — or at least give that impression. From age ten, they began to recognize that death is inevitable for all and can come to them.

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[1] Maria Nagy, The Meaning of Death, McGraw-Hill Publishing Co., New York, NY 1959

LEARNING ACTIVITIES - continued

Depending in the level of maturity of the patient during terminal illness, the patient may progress through five stages that have been identified by E. Kubler Ross in her book "On Death and Dying." The first of these stages is shock and denial: "It can't be me." When the patient can no longer say, "No, not me," he asks ususally, "Why me?" The patient then becomes angry and difficult with those around him. He is not really angry at other persons; he is angry because other persons have life while he is in the process of losing his. This can be delt with by allowing the patient to ventilate and repress his anger.

The third stage is bargaining. The ill child losses his anger and bargains with God, giving a promise in exchange for lengthening of his life. One example would be, "If God will let me live, I'll become a priest." In this stage the patient is saying, "Yes, me, but . . . ". When the child drops the "but", he acknowledges what's happening and becomes depressed. The patient realizes the child will soon lose everyone and everything he has known and loved. The patient then enters the stage of acceptance, which is a good feeling. This means that the patient has finally said and done everything he believed was unfinished business and is ready to go.

Remember they are children when explaining death to them. They may be further confused or disturbed by attempting to soften the blow. Telling them Grandpa is "sleeping" may make the child fear to go to sleep. Telling them that "God took him" may lead to fear, resentment, and hate toward God as the enemy who takes without warning, which may also lead to anxiety and guilt. It is better to explain the immediate cause rather than give a philosophical or religious interpretation. For example, in death due to an accident, stress safety and good judgement is necessary to protect ourselves; in death due to sickness, stress lack of scientific knowledge and better preventive measures; in death due to old age, stress the fact that all bodies get old and tired and the heart cannot work. The words used are important because youngsters tends to personalize most things they think about. Therefore, extra reassurances is necessary if a playmate has died since they may see themselves as having the same experiences. This is also true when parents of children their own age die. In this case, assure the youngsters that not many people die that young, and make clear that arrangement would be carried out so life would not be too different for them -- that someone would care for them. Children should be told of the death because probably the most disturbing factor to children (as with adults) is the uncertainty as to what has happened, and what it means to them personally.

The outward reaction of children is often confusing to adults. They may act as if nothing has happened (however, these children may be the most deeply affected and need the opportunity to talk) or they may play out death and funeral scenes. In fact, the psychology of preparing the child for the experience of death by playing funeral if a pet has died serves to cushion the child against more violent feelings.

During mourning, a surviving child often feels of less significance than the deceased, or may be forced to express grief she does not feel. The parents may be hostile and that hostility seeks a target; even their own child, as indicated by a statement like, "Her brother died, let her suffer too." Infrequently, the deceased parent is used as a club over the child's behavior; "Daddy would be upset." There is no way the child can check the soundness of this interpretation and it is not fair to the deceased whose image is likely to become threatening, unsympathetic tryant toward whom the child feels hostile. Often the child feels in some way responsible for the death of a family

LEARNING ACTIVITIES - continued

member. If Pedro was "shushed" often, the child may feel Pedro died because of noise. Or, the child may feel responsible for the death thinking that the death happened because the child wished it. In any case, do not push the child to talk. The child's feelings may have to be worked out inside before the opportunity for expression is given. But be ready to respond whenever the child indicates a desire to talk and to follow the child's lead. Listen to the child.

The extent to which youngsters should participate in funeral ceremonies is debatable. The common practice of sending the children to friends in an effort to spare them is often unwise. The feeling of being shut out of something that means a great deal, the shock of separation from family or the uncomfortable feelings of the mysterious goings on, may be more disturbing than the actual funeral ceremony. Sharing family experiences means a great deal, and an experience seems to indicate it is usually better to err by allowing the child to be part of all family experiences rather than shutting the child out from more unpleasant ones. There are limits though. For example, the child may not be allowed at the funeral, but could help with guests at home.

The importance of permitting younger family members to be as much a part of the family when death occurs, as well as other times, cannot be overemphasized. The child deserves the right to "belong" — to experience grief and sorrow as well as joy and happiness. Studies have shown that in the British bombings of World War II, the children who endured them in the cities with their families were less anxious and disturbed than the uprooted youngsters.

It is important to remember that there is a big difference between permitting participation and forcing participation. Generally, except for protection against hysterical displays of emotion, the child can and should have a part in whatever the family does in the way of honoring the dead. The biggest benefit for the child is probably just taking the child in your arms and loving him or her.

Nursing Care to Terminally Ill Children and their Parents

A. Children who are dying are also still living (interest stimulated, limits set, and security provided).

B. Communicate with all involved in care so that all knows exactly how much the child and parents know about the child's condition.

C. Clergy brought into contact with the family and child if it is the wishes of the family.

D. Provide psychologic care as well as physical care.

E. Nurse in a helping role can give most by furnishing an opportunity for those who are pained to express their anger and fears to someone who will not be devastated by their expressed feelings.

F. Do not leave a dying patient alone, they need to know someone cares.

G. Honesty is important in relations with the child as with the adult.

LEARNING ACTIVITIES - continued

H. Consistancy of personnel should be provided for the sake of the child and parents.

I. Keep room neat, welcome the family warmly and permit as much visiting as possible.

J. After the death of the child, whatever behavior the parents display, be accepting.

K. Nurses too, may express emotion as the nurse has grief and is deeply moved by the child's death.

L. Allow families to be with the child after death has occured.

M. Whether you tell other children on the unit and what has happened depends on age, diagnosis and closeness to the dead child among other factors.

LEARNING ACTIVITIES - continued

GOD'S LENT CHILD

"I'll lend you for a little while
A child of mine," God said —
For you to love the while he lives
And mourn for when he's dead.
It may be six or seven years
Or forty-two or three;
But will you, till I call him back,
Take care of him for Me?
He'll bring his charms to gladden you
And — (should his stay be brief) —
You'll have his lovely memories
As a solace for your grief.
I cannot promise he will stay,
Since all from Earth return;
But there are lessons taught below
I want this child to learn.
I've looked the whole world over
In my search for teachers true;
And from the things that crowd life's lane
I have chosen you.
Now will you give him all your love?
Nor think the labor vain?
Nor hate Me when I come to take
This lent child back again?
I fancied that I heard them say —
Dear Lord, Thy will be done.
For all the joys Thy child will bring
The risk of grief we'll run.
We will shelter him with tenderness,
We'll love him while we may —
And for the happiness we've known
Forever grateful stay.
But should Thy angels call for him
Much sooner than we've planned,
We'll brave the bitter grief that comes
And try to understand

LEARNING ACTIVITIES - continued

ACTIVITY #11. Review Exercise

Directions: Answer the following questions from Activities 6, 7, 8, 9, and 10. The answers can be found by rereading your material.

1. What is strabismus? ____

   ____

2. List three reasons why it is important to identify strabismus early.

   a. ____

   b. ____

   c. ____

3. List four possible symptoms a child with strabismus may have.

   a. ____

   b. ____

   c. ____

   d. ____

4. Write a brief description about the nursing care given to prepare the child for eye surgery.

   ____

   ____

   ____

   ____

5. List four common causes of childhood anemia.

   a. ____

   b. ____

   c. ____

   d. ____

LEARNING ACTIVITIES - continued

6. Complete the following on anemia.
   a. Symptoms ____________________
   b. Lab findings and clinical manifestations ____________________
   ____
   c. Treatment ____________________
   ____
   d. Home care ____________________
   ____
   e. Prognosis ____________________
7. Complete the following on sickle cell disease.
   a. Etiology ____________________
   b. Lab findings and clinical manifestations ____________________
   ____
   c. Treatment ____________________
   ____
   d. Nursing care ____________________
   ____
   e. Prognosis ____________________
   ____
8. Define sickle cell crisis. ____________________
   ____
   ____
9. Complete the following on leukemia.
   a. Etiology ____________________
   b. Lab findings and clinical manifestations ____________________
   ____

LEARNING ACTIVITIES - continued

c. Treatment ______________________________

____

____

d. Nursing care ______________________________

____

____

e. Prognosis ______________________________

____

10. Describe four ways that chemotherapeutic drugs aid in the treatment of Leukemia.

    a. ______________________________

    b. ______________________________

    c. ______________________________

    d. ______________________________

11. Complete the following on hemophilia.

    a. Etiology ______________________________

    b. Diagnosis ______________________________

    c. Symptoms and Treatment ______________________________

    ____

    ____

    d. Nursing care ______________________________

    ____

    ____

    e. Prognosis ______________________________

    ____

LEARNING ACTIVITIES - concluded

12. What drugs can be used safely with hemophiliac child and why?

____

____

13. Complete the following on idopathic thrombocytopenic purpura.

    a. Etiology ______________________________

    b. Laboratory findings ______________________________

    c. Symptoms ______________________________

    d. Treatment and nursing care ______________________________

    ____

    ____

    ____

    e. Prognosis ______________________________

14. Describe the nursing needs of the child with a fatal illness as disease.

____

____

____

15. Write a brief description about how you would provide nursing support to the parents of a child with a terminal disease.

____

____

____

16. Discuss the five stages that one goes through when facing death.

____

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unit 14

NURSING CARE OF CHILDREN

Module F - The School Age Child (6 to 12 years)

RATIONALE

To give effective nursing care to the school age child, it is essential to know the normal growth and development patterns. You should be aware of the conditions of the school age child requiring special nursing care.

"Rearing children is like holding a very wet bar of soap — too firm a grasp and it shoots from your hand, too loose a grasp and it slides away. A gentle, but firm grasp, keeps it in your control."

Elaine Hannagan

PERFORMANCE OBJECTIVES

To the instructor's satisfaction you will:

1. Identify social and emotional growth and development of the normal school age child.
2. Identify the needs of the healthy school age child.
3. Identify conditions commonly associated with the school age child.
4. Describe the nursing care required for the conditions commonly associated with the school age child.

CLINICAL OBJECTIVES

In the clinical area and to the instructor's satisfaction, the student will:

1. Differentiate the normal growing and developing school age child with one who has problems in growth and development.
2. Assess the interaction between parents and the school age child.
3. Formulate and execute a plan of nursing care appropriate for the condition of the school age child.

LEARNING ACTIVITIES

All the material you need to complete this module is included in this section and in Marlow's Textbook of Pediatric Nursing. To help you to learn the material and to prepare for the test, written exercises are included. Unannounced quizzes may be given. If you find words you do not understand, look in the terminology section of this unit or in a medical dictionary.

LEARNING ACTIVITIES - continued

ACTIVITY #1. Normal Growth and Development of the School Age Child

Directions: Read the following on the growth and development of the school age child. This information relates to the normal average child and behavior will vary from child to child. This stage in development is identified by Erickson as the age of sense industry vs. inferiority. The child is learning to win recognition by producing things. This is the age when more exploring takes place and the child begins to collect items. The school age child is beginning to relate to his or her own sex.

I. Six Years

The "sticky" sixth year, the year of transition, represents a stormy age full of emotions and conflicts. It is a rigid, negative, bossy, and demanding age where company manners may be forgotten. Constantly striving to assume increased responsibility and self-direction, the child has to be "right"; yet lacks the basis for making wise decisions. Bossy and a show off, the child is easily hurt by criticism and craves parental praise. Six years is an age when a child is most likely to cheat and steal; yet, often accuses others of cheating.

The child is ready to start anything, but rarely finishes the task. The child appears to be in constant motion but physical movements may be a little clumsy.

A. Vocalization and mental abilities

The six-year-old has command of every form of sentence structure and now may use language aggressively, with slang, and even swearing! The child still defines objects in terms of their use: "A chair is to sit on." Probably the greatest accomplishment in abstract thought is a beginning interest in the concept of a power greater than anyone else.

The child knows right from left, can count to 20 or more, but when printing, may reverse one or two of the digits or capital letters. The child now recognizes shapes, reads, describes objects seen in pictures, and is able to obey three commands given in succession.

B. Physical development

1. Loss of temporary teeth continues
2. Enjoys physical activity
3. Climbs, skips, hops and gallops well
4. Both sexes walk steadily on chalkmark
5. Learns to skate
6. Some can ride a bike
7. Plays throw and catch
8. Hammers and builds structures

LEARNING ACTIVITIES - continued

II. Seven Years

Seven is generally a quieting-down period. While preferring group play, the child likes to play alone and dislikes being interrupted. Conscious of right and wrong, the child may tattle on others to satisfy his or her sense of justice. The child sets high standards for family members and feels angry over what the child regards as failures in living up to their roles. While cooperative and wanting parental approval, the child often hears only what he wants to hear. That, and teasing, may get the child into some difficulties.

A. Vocalization and mental abilities

The child is becoming oriented to time as well as space. The child knows the months and seasons of the year and is beginning to read the clock. The attention span is lengthening and the child enjoys repeating activities that afford satisfaction. Religion and God's place in the world are becoming increasingly more interesting.

The child can print several sentences, though the letters become smaller toward the end of the line; can repeat five numbers in succession and three numbers backwards; count by two's and five's; and grasp the basic idea of addition and subtraction. The child's hands are becoming more steady, and a pencil with an eraser is often preferred to a crayon.

B. Physical development

1. Wiggles a loose tooth

2. Diversion between boys and girls

3. General level of activity is lower

4. Enjoy games they can sit down and play

III. Eight Years

The eight-year-old is enthusiastic, expansive, cocky, and may overestimate his or her ability. The child is creative in solitary play but needs other children and their approval. The eight-year-old also wants to be considered important by adults and tries to understand adult ideas and standards by listening to what is told to him. The child learns by experience and from others what is necessary for group living. The eight-year-old behaves best when strangers are present or when away from home. Hero worship and fads begin at this age.

A. Vocalization and mental abilities

In school, the eight-year-old may enjoy reading science fiction. Hand-eye coordination is such that the child enjoys writing rather than printing. In mental tests for this age group are questions such as naming from memory similarities and differences between two objects and counting backwards from 20. The child begins to understand perspective in drawing. Also has some concept of the number of days which must pass before some pleasant event will take place (Time and Reasoning).

LEARNING ACTIVITIES - continued

Some children enjoy going to Sunday School and are interested in hearing about heaven as "the place you go when you die".

B. Physical development

1. Arms growing longer in proportion to the body
2. Movements are becoming smoother
3. Amusements change as matures
4. Boys and girls are dramatic in their activities and accompany speech with descriptive gestures

IV. Nine Years

Nine-year-olds are beginning to take part in family discussions but are interested in showing others that they are individuals and resist or ignore adult activities when it conflicts with ideas or values of their peer group. They are better able to accept blame for their acts and assume more responsibilities. They are more motivated, as well as more likely, to complete the tasks they begin. Actually, they seem in a constant state of urgency to get things done.

They fluctuate between childhood and youth in their actions and thoughts. Hero worship is becoming pronounced. Girls still play with girls and boys with boys. Competition is keen in sports as the child displays more manual dexterity.

They respond better if treated as if they were more mature. Teachers find the children in fourth grade difficult to teach.

A. Vocalization and mental abilities

The child can take care of bodily needs completely; this is a great step away from early childhood and toward adult self-reliance. The child has developed acceptable table manners. Also, may show a lack of interest in God and in religion. Certainly a contrast to the two preceding years.

New abilities show mental development, including describing common objects in details, matching material he or she reads with reality, making correct change from a quarter, multiplying and dividing, and repeating four numbers backwards.

B. Physical development

1. More variation in skills
2. Hand-eye coordination is developed
3. Skillful in manual activities
4. Generally can use both hands independently
5. Shows great interest in competitive sports

LEARNING ACTIVITIES - continued

V. Ten Years

The "heavenly tens" is one of the "nicest ages". Obeying family rules comes easily and naturally as children actually try to be good. Not until age 16 are the children so comfortable and easy to manage and never again will parents be so completely accepted. They have acquired greater mastery of themselves and their environment. They are courteous and well mannered with adults. They want to measure up to a challenge. Special talents appear in this age group and they desire perfection in their complex abilities.

They have broad interests and are beginning to think of social problems and social prejudices. They are capable of great loyalties and intense hero worship, both qualities making for successful group membership.

Ten-year-olds are interested in matters of sex but are more likely to discuss the subject with their peers rather than their parents. Outside the classes, the two sexes rarely mix although they tease each other about friends of the opposite sex.

The ten-year-old wants to be independent. For this reason requests should be made positively and with tact. Negative requests affront their sense of personal worth.

A. Vocalization and mental abilities

Children now think of situations in terms of cause and effect. They have some insight into the fundamentals of human relations and want to accomplish great things in life.

Their education is now advanced and they use what they know and the skills they have acquired in their daily life. They can write for a relatively long time and maintain good speed. They can use numbers beyond 100 with understanding and do simple fractions.

B. Physical development

1. Sex difference more pronounced
2. Basic small motor movements perfected
3. Desire perfection in their complex abilities
4. Girls have more poise because of the earlier maturation

C. Ten to 12 years (Preadolescence)

It is a time of rapid growth and development, when many problems occur.

LEARNING ACTIVITIES - continued

VI. Eleven Years

Eleven-year-olds can be rude, argumentative, and rebellious against the authority of home, school, and church or synagog (although they can behave devinely away from home). Shirking chores, blaming others and swearing, they are jealous of their siblings. They fight for their rights quoting the privileges of "other kids". The peer group is very close. Sharing secrets and using a secret language plays a big part. The eleven-year-old girl is acutely aware of her budding breasts. This is the last time girls will think of boys as pests.

VII. Twelve Years

Daydreaming and enthusiastic, twelve-year-olds like to arrange their own activities. More mature girls usually are interested in boys, but not vice versa. Girls may start menstruating and boys may begin to experience erections and nocturnal emissions. They seek information, but if they do go to a parent, both sexes will probably speak with the mother.

A. Vocalization and mental abilities for both 11 and 12-year-olds

Average child is able to define some basic abstract terms such as honesty and justice. Children in this age group can see the moral of a story. Intellectual growth is seen in their interest in world affairs, both past and present, and their attitudes toward social problems, especially those which touch their daily lives.

They are eager to learn about health. They want to know why the mouth should be covered when coughing.

B. Physical development for 11 and 12-year-olds

1. Filled with energy and constantly active
2. Muscular control is good
3. Manipulative skill almost equals that of the adult
4. Appear to be under tension with foot-tapping or finger-drumming
5. 12 year molars erupt (last to erupt during childhood)
6. Spurts in growth comes earlier in girls than boys
7. Girls lag behind boys in endurance and physical strength

LEARNING ACTIVITIES - continued

C. Personality development

Read the following information on personality which portrays the school-age child in a period of industry vs. inferiority.

Six to Nine Years (Latency Period)

1. Decline of sexual tendencies
2. Increase in industry and productivity
3. Extra energy available at this age which was used earlier for internal conflicts is now channeled into industry and intellectual growth
4. Gratification comes from school experience and accomplishments
5. Child begins to identify with parents' non-sexual interests
6. New adults outside the home become important; children begin to break away from the home
7. Children are still very dependent and frustrations outside the home produce regressed behavior. (Return to that which was comfortable and secure)
8. Peer group importance:
    a. Locates pleasure in social world
    b. Little interest in members of opposite sex; repression of earlier sexual feelings toward parent of the opposite sex
    c. Peers of same sex; boys have "gangs"; girls have one or two special confidants
    d. The child is willing to give up part of own identity to become a member of the group; basis for society living as adult
    e. If the child lacks confidence in own ability, this will be threatening experience and the child will withdraw
    f. Little sensitivity to the feelings of others and cruelty often occurs
    g. Learns to compete and compromise
9. Fantasy life important:
    a. Interest in opposite sex taken up in daydreaming and denied in reality
    b. All conflicts about origin and personal worth worked out in fantasy world

LEARNING ACTIVITIES - continued

   c. Period of ego development; busy with repression, sublimation, and fantasies to cope with internal and external stimuli

   d. Superego is already formed but performs strongly here causing shame, guilt, and anxiety

Ten to Twelve Years (Preadolescence)

1. Interest and concern for another of the same sex; development of capacity for love as opposed to concern only for oneself
2. Closeness with others with no pretenses (collaboration of girls and their friends)
3. Physical changes occurring which may or may not produce anxiety depending on the earlier preparation
4. Psychologic needs of children:
   - a. A sense of belonging
   - b. Parents with whom to identify
   - c. Experience in being needed
   - d. Opportunities to find satisfaction in world about them
   - e. A chance for adjustment with a group
   - f. Experience in self-sufficiency and independence
   - g. Security of stable circumstances
5. Parent reactions that adversely affect the child:
   - a. Over submission
   - b. Over indulgence
   - c. Over permissive
   - d. Over correction
   - e. Rejection
   - f. Over-seductive/over-stimulating attitude
   - g. Inconsistent behavior and discipline
   - h. Symbiotic relationship
   - i. Vicarious relationship

LEARNING ACTIVITIES - continued

- j. Psychotic or sociopathic behavior
- k. Rigid and/or perfectionist parent
- l. Belittling or punitive attitude
- m. Distrustful attitude
- n. Neglect
- o. Marital disharmony
- p. Over protection

D. Physical development

1. Progressively slower growth in height
2. Rapid gain in weight - average of 7 lbs. per year
3. Posture should be good
4. Lymphatic tissue reaches height of development
5. Frontal sinuses are fairly well developed—from this time on the sinuses are potential foci of infection
6. Temperature, pulse, and respiration approach the adult norms. (Pulse 85 to 100/min.; B/P 95-108/62-67; respiration 18 to 20/min.)

ACTIVITY #2. Care and Nutrition of the School Age Child

Directions: Read the following.

I. Care

A. Physical care

1. Fairly self-sufficient in bathing, dressing, and toileting
2. Need help with neatness and cleanliness
3. Girls more careful of appearance than boys
4. Six-year-old dawdles and needs management
5. Seven-year-old still dawdles, but tends to complete task
6. Eight-year-olds are more efficient in caring for themselves

LEARNING ACTIVITIES - continued

7. From nine to 12 years of age, show increased responsibility in selection of clothes

8. All ages need reminding to brush teeth, or wash hands thoroughly

B. Sleep

1. Sleep of the school age child is rarely quiescent

2. Night terrors or nightmares are common

3. Older child may become self-assertive about the time when he or she wishes to go to bed

4. Bedtime should be quiet time--time for confidences, questions and answers and discussions

5. Amount of sleep a child needs decreases with age

    a. Six-year-old — 11-12 hours of sleep

    b. 12 year-old — only 10 hours of sleep

C. Safety measures

1. Accidents

    a. Six to 12-years most common cause of accidents is motor accidents

    b. Second most common cause of accident is drowning

    c. Broadening scope of activity among children also broadens the area of possible accident, i.e., riding bicycle, gymnastics, sports, and skateboarding

Hopefully, the school age child has a sound basis of safety from preschool years upon which further development, to meet accident hazards can be built.

2. Sex molestations

    a. Children must be warned about the danger of other people as well as poisons or pills

    b. Warn children about accepting favors from and accompanying strangers

    c. Children should be taught to report any unusual occurrences

LEARNING ACTIVITIES - continued

II. Nutrition

A. Caloric requirements per unit of body weight continue to decrease, but the nutritional requirements remain relatively greater than in a mature person.

B. Eat well and have fewer food fads than preschooler.

C. Eating problems usually relate more to time of eating; e.g., activities, TV program.

D. Meals should be a pleasant restful period.

E. Six-year-olds shift their mouths, spill food and grab for it and are very talkative while eating. May refuse to use a napkin.

F. Seven-year-olds talk less during the meal. May bolt their food.

G. Eight and nine-year-olds eat more neatly using napkin as their elders do.

H. Ten to twelve-year-olds eat an adult meal and have table manners.

I. Eating habits improve if less stress is placed on table manners.

J. Best aids to appetite are a friendly atmosphere and enjoyment of the meal.

ACTIVITY #3. Review Exercise

Directions: Complete the following questions over activities 1 & 2. The answers can be found by rereading the material.

1. The school age child will gain about ________________ pounds a year.
2. Fine-motor control is developed enough so the child usually can write by age ________.
3. The six-year-old is characterized by ____________________________________
   ____
4. Peer group influence begins to appear by age _________.
5. Erikson says the school age child must learn ____________________ vs ______________.
6. Special talents are usually evident by age ______________________.
7. What is one of the "nicest ages"? ______________________________
8. How should requests be made of the 10 years-old and why? ________________
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LEARNING ACTIVITIES - continued

9. Why does the 11 or 12-year-old seem rude and argumentative? ______________

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10. Discuss how parents' efforts to over-correct could have adverse affects on the 9 to 12-year-old. ______________________________

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11. What are the two most common causes of accidents in the school age child?

______________________ and ______________________ .

12. What type of education does the school age child need regarding sex molestation? ______________________________

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13. What characteristic does the 6-year-old have that creates great impatience in mothers? ______________________________

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14. What aids might be used to encourage a school age child to have a better appetite? ______________________________

15. What can be said about the appetite of a school age child? ______________

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ACTIVITY #4. Problems of School Age Children

Directions: Read your text pages 688-689, and then read the following.

I. Allergy

The term allergy means an altered reaction of the tissues in certain individuals on exposure to agents which are harmless to other persons. In some people, the body tries to defend itself not only against dangerous invaders but against substances which are really harmless. When an antigen or a foreign substance enters the body, the individual defends himself by creating an antibody to

LEARNING ACTIVITIES - continued

destroy the foreign material or change it into a harmless substance. Histamine is produced in large amounts by these reactions in allergic persons and is responsible for causing unfavorable allergic effects on body tissue. Such sensitization may result from inhalation, absorption through the skin, ingestion or parenteral injection. There seems to be a family tendency toward allergies. Approximately 75% of allergic children have a positive family history.

The most common allergies are: eczema, hay fever, and asthma. Children of allergic parents should not be given foods which commonly cause an allergic response, such as, cow's milk, eggs, chocolate, wheat and oranges.

A. Eczema: Inflammation of the skin; dermatitis (read your text, pages 469-473)

Cause:

Internal or external irritants. Babies are the chief sufferers from eczema; most frequently found in bottle-fed babies and fat babies. One reason why infants are more susceptible is due to their skin being more sensitive. Overfeeding, especially of carbohydrates of fats, may lead to eczema.

Symptoms

1. Lesions, usually on cheeks as minute (tiny) red spots. (papules and then vesicles)
2. The superficial epithelium is lost (as a result of rubbing), leaving a raw, weeping surface which becomes crusted and thickened
3. Severe itching and burning (secondary infection)
4. Severe cases may involve the entire body

Treatment and nursing care

1. Remove all possible sources of local skin irritation such as soap, diaper irritants
2. Careful history
3. Skin testing may be necessary
4. Prevent scratching (possible use of tongue blade restraints)
5. Keep skin and clothing clean and dry
6. Bath in water, no soap
7. Medications as ordered, no ointments unless designated by the doctor
8. Lowered resistance, susceptible to infection, so isolate
9. Corticosteroid may be given systemically or applied locally

LEARNING ACTIVITIES - continued

Prognosis

Condition usually outgrown, sometimes fairly suddenly; around the beginning of the third year. If it persists, it may be a food allergy. If it lasts beyond, it seems confined to certain areas as in front of elbows or behind the knees.

B. Allergic Rhinitis or Hay fever: (read your text, page 691)

Allergic manifestation involving the upper respiratory tract. Seasonal in occurrence. Begins at about age three, attacks more frequent after puberty.

Cause

Pollens, articles of furniture, upholstery, rugs, bedding, pets, foods.

Symptoms

1. Sneezing
2. Rubbing of nose to relieve itching
3. Nasal stuffiness
4. Itching and erythema of the conjunctive. (Conjunctivitis)
5. Nasal discharge clear, profuse; if secondary infection occurs, becomes purlent.

Treatment

1. Elimination of allergen
2. Air-conditioning and filtering service
3. Antihistamines - side effect somnolence
4. Patch skin test to identify allergens

Nursing care

1. Teach parents environmental control
2. Teach parents to give medication correctly
3. Teach parents ways to prevent infections

C. Asthma (read your text pages 689-691.)

Found in individuals with hereditarily allergic constitutions. It is an allergic state of the respiratory system; the attacks are characterized by wheezing respirations. Bronchial muscles go into spasms and mucus fills the bronchial tubes causing dyspnea and cyanosis.

LEARNING ACTIVITIES - continued

Cause

Asthma may be evoked by particular foods, inhalants or infections, particularly those of the respiratory tract. Vigorous activity, exposure to cold or an emotional upset may also precede an asthmatic attack.

Pathology

The bronchiolar musculature goes into spasm, and the mucus membrane becomes pale and edematous. Then thick, tenacious mucus collects, and there is further obstruction of the air passage. Both phases of respiration are hampered.

Symptoms

1. Dyspnea with expiratory wheeze
2. May be gradual onset with sneezing, nasal congestion, and slight cough
3. Often occurs suddenly and may be at night
4. Perspires profusely
5. Sits up in bed to breathe
6. Coughs continuously
7. Bronchus become plugged with mucus, atelectasis occurs in that lobe
8. Neck veins become distended
9. Cyanosis is common

Treatment

1. Eliminate the offending allergen (food or environmental)
2. Desensitization to the allergens
3. Avoid fatigue and chilling
4. Keep calm and emotionally at ease
5. Drugs used:
   a. Epinephrine (Adrenalin) sub q relieves bronchial constriction as it relaxes smooth muscles
   b. Aminophylline which is a bronchodilator, can have toxic effects of vomiting, irritability, excitement or convulsion

LEARNING ACTIVITIES - continued

   c. Antihistamines

   d. Corticosteroid - long term use can cause suppression of adrenal activity, growth retardation and dependency

   e. Potassium iodide - (SSKI) liquifies bronchial secretions

   f. Sedatives such as phenobarbital and chloralhydrate may be used to prevent exhaustion. However, do not use Morphine as it decreases the cough reflex and makes it difficult for the child to get rid of secretions.

   g. Isopropylnorepinephrine in IPPB may be used

   h. Antibacterial therapy is given when an infection occurs along with the asthmatic attack

6. O_2 may reduce anoxia and cyanosis

7. Status asthmaticus attacks may last for several days and nights and require even more intense medical care such as continuous use of positive pressure, endotracheal tube or tracheotomy

Nursing care

1. Stay with the child

2. Assist with therapy

3. Reduce anxiety of child and parents

4. Observe and report any toxic manifestation of drugs used

5. Make accurate observations of the child's behavior with other children, hospital personnel, as well as parents

6. Teach family long-term care of the asthmatic child:

   a. Prevent infections

   b. Balanced diet with vitamins

   c. Eats slowly due to respiratory difficulty, so provide sufficient time for meals

   d. Adequate rest

   e. Emotionally calm

LEARNING ACTIVITIES - continued

Prognosis

Prognosis favorable if treatment is begun early. Many children cease to have asthmatic attacks at puberty though others continue having them in adult life. If the asthmatic attacks cease, the child may exhibit some other allergic manifestation.

Review Exercise over Allergies

Directions: Complete the following by filling in the blanks.

1. Describe the pathology of asthma. ____________________

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2. List four possible allergens that might cause an asthma attack:

a. ____________________

b. ____________________

c. ____________________

d. ____________________

3. List three drugs used in the treatment of asthma and describe their mode of action.

Drug

a. ____________________

b. ____________________

c. ____________________

Mode of Action

a. ____________________

b. ____________________

c. ____________________

LEARNING ACTIVITIES - continued

4. Discuss why a child should never be left alone during an asthmatic attack:

5. What is allergic rhinitis:

6. What substance is produced by the body during an allergic reaction which is responsible for the unfavorable affects on the body?

7. Discuss eczema and the appropriate nursing care:

LEARNING ACTIVITIES - continued

ACTIVITY #5. Convulsive Disorders

Directions: Read your text, pages 692-696, and read the following.

Definition

A convulsion is a disturbance of neuromuscular activity and of consciousness caused by an interruption of normal central nervous system impulses. May be termed a symptom of a disease rather than a disease entity.

Etiology

In infants, convulsions are most often due to intracranial birth injury, congenital brain defects, or fever. In older children, the causes become more diffuse and include epilepsy, acquired brain injuries, systemic disease, and poisonings.

A. Epilepsy

Epilepsy is characterized by paroxysmal, recurrent attacks of impaired consciousness or of unconsciousness. Tonic or clonic muscular spasms or another type of abnormal behavior occurs. Epilepsy is not a specific disease entity in itself, but rather a general term which includes a variety of recurrent seizure patterns.

1. Two types of epilepsy

a. Idiopathic or Cryptogenic epilepsy

Incidence

Half of the children who have recurrent seizures before puberty have idiopathic epilepsy. Onset between 4 and 8 years of age.

Cause:

No cause can be found, heredity may be a factor.

Treatment

Control with treatment in about 85 per cent.

b. Organic epilepsy

Cause

Results from a number of focal or diffuse injuries to the brain which have left residual damage. Examples of such injuries would be, direct laceration of brain tissue, hemorrhage due to trauma, anoxia (asphia neonatorum), meningitis, encephalitis, kernicterus, or lead poisoning. Congenital problems such as hydropcephalus and syphilis may result in organic abnormalities in the brain.

LEARNING ACTIVITIES - continued

2. Aspects of a seizure

   When observing a seizure, particularly useful localizing information may be obtained if one is familiar with the various aspects of a seizure. Thus a clear description of a given seizure aids not only in neurological localization, but frequently suggests the underlying cause.

   a. Aura - the patient's experiences just prior to the onset of the seizure. This may include visual hallucinations indicating occipital or temporal lobe; verbal phenomena may involve the dominant hemisphere; unusual tastes, odors, visceral sensations, or dreamy feelings which suggest temporal lobe focus.

   b. Eye movement - cerebral cortical discharges in one hemisphere tend to deviate the eyes to the opposite side, while bilateral discharges tend to make the eyes go upward or straight ahead. Often in the period right after the seizure the eyes will deviate in the opposite directions. Knowing the eye position can thus have localizing value. If the patient's eyes are closed during the attack, a gentle attempt to open them is warranted.

   c. Unilateral motor activity - the body part and side involved in the seizure imply electrical discharges in the corresponding area of the opposite cerebral cortex.

   d. Complex motor activity - seizures beginning with or consisting of complex or repetitive activities often have their source in the temporal lobe.

   e. Loss of consciousness - this indicates that the seizure generalized cortically or involved the basal structures of the brain. Incontinence or injury (a bitten tongue) suggest that loss of consciousness occurred.

   f. Postical state - the state of the epileptic patient after a seizure should also be carefully observed, weakness, hypotonia, or inactivity of a body part posticial implies that the epileptic focus lies in the opposite corresponding cortex.

3. Types of children's seizures

   a. Focal seizure (Jacksonian) - an epileptic discharge confined to a limited area of cerebral cortex will produce seizures reflecting the motor or sensory function of that area of cortex. focal motor seizures show tonic stiffening or clonic jerking activity of the opposite side of the body, suggesting involvement of the primary motor cortex. In seizures involving the supplementary motor cortex, the involved arm is raised and the child appears to look at the raised arm. This is called an adversive seizure. If focal seizures do not generalize, consciousness is preserved. Onset of focal seizure in an adult often indicates serious underlying disease (tumor or vascular disease). In childhood, however, it is common for complete evaluation to reveal no disease, and the prognosis may be excellent.

LEARNING ACTIVITIES - continued

b. Psychmotor seizure (temporal lobe epilepsy) - usually involves the temporal lobe and causes purposeful but repetitive inappropriate muscular acts. An onset consists of complex sensory phenomena of odd tastes, odd smells, auditory or visual hallucinations, ill defined feelings of elation or strangeness. Repetitive movements of the eyelids, face, mouth, and tongue are usually present. Consciousness is usually impaired or lost. The most common cause is scarring and malformation of the medical temporal lobe, perhaps from birth trauma and prolonged febrile seizures in infants.

c. Grand mal (generalized major motor) - this is the most common seizure type in childhood and consists of loss of consciousness with generalized, convulsive activity. It begins with or without a distinct aura; the attack consists of tonic-clonic* movements of the limbs after the patient has become unconscious. Eyes stare ahead or roll up, incontinence or vomiting may occur, and cyanosis may accompany the impairment of respiratory muscle function. Following the seizure the child remains unconscious for a time and then becomes confused, sleepy, and uncoordinated before finally returning to a normal state. A wide variety of toxic, metabolic infections, structural neurologic, and genetic problems may cause tonic-clonic seizure. Often there appears to be no definite cause and the child is diagnosed as having idopathic epilepsy. Prognosis and treatment clearly depend on the underlying process.

Tonic:	Spasm is an involuntary, violent, persistent contraction. Child falls to ground; pupils dilate, face is distorted, neck, abdominal, and chest muscles are held rigidly. The limbs are stiffened. The child may bite tongue and may void or defecate. As air is forced out of the lungs a brief cry may be heard. Cyanosis occurs, since respiratory movements are arrested. This phase usually lasts up to 40 seconds.
Clonic:	Consists of alternate contraction and relaxation of the muscles; lasts indefinately. After this the child goes into a deep sleep.

d. Absences (petit mal) - onset in childhood usually between 5 -10 years of age and generally resolve by adulthood. Absence spells consist of brief (5-10 seconds) lapses in consciousness with minimal or no alteration in muscle tone. Patients rarely fall or injure themselves. The "Staring Spells" or petit mal attacks are mistaken for inattentiveness. Movements such as blinking, facial twitching or quick myoclonic jerks of the limbs may occur, but if the seizure is brief these may be missed. Following the absence spell the patient recovers instantly with no postical symptoms or confusion. Petit mal seizures are thought to have their origin in the diencephalon. Also there is some evidence to suggest that petit mal epilepsy is dominantly inherited.

LEARNING ACTIVITIES - continued

e. Infantile Spasms - These seizures usually begin between 3 and 9 months and occurance after 2 years is unusual. There are three clinical types all occurring as momentary "lightning attacks" and tending to run in clusters. The infant may:

(1) drop head briefly

(2) stiffen limbs or head in extension, an opisthotonic posture or

(3) drop his head, raise and extend the arms and flex his legs at the hips (frequently misdiagnosed as abdominal colic)

The EEG is a chaotic tracing termed hyperarrhymthia or disorganized state disappearing the third year and grand mal seizures appear. The condition is usually accompanied by mental retardation. In three-fourths of the patients a pre-existing neurologic abnormality is present.

4. Diagnosis

a. Family history

b. Record of seizure

c. EEG studies

5. Nursing care during a seizure

a. Protect the child from injury - DO NOT RESTRAIN

b. Observe the seizure carefully

c. Put a plastic airway or padded tongue blade in the mouth if it can be placed without excessive trauma. This will maintain the airway plus prevent chewing on the tongue

d. Remove tight clothing

e. Turn patient on side, or turn head to the side so that aspiration of secretions doesn't occur

f. Oxygen given if cyanosis occurs

g. Discourage bystanders from looking on

h. Once the active spasm phase has ceased, the child may be moved to bed or to a quiet area where he or she can rest

i. The calmness and sureness of the nurse's actions will do much toward relieving the parent's and the child's anxiety

6. What the nurse should observe during a seizure

a. The time the seizure begins and ends

LEARNING ACTIVITIES - continued

b. The first signs of convulsion

c. Any changes in behavior prior to the convulsion, such as irritability, restlessness, or listlessness

d. The child's state of consciousness

e. Eye movement

f. Type of motor activity involved

g. Any incontinence

h. Color and rate of respirations

i. Any vomiting

j. The child's behavior after return to consciousness

7. Nursing care of the child with a seizure disorder

a. Great deal of support to family and child

b. Educate child and family about medication

c. Information given to family in regards to a Medic Alert identification which should be worn by the child

d. Treat child as though he or she were essentially normal

8. Treatment

a. Anticonvulsant drugs (see chart 14-292).

b. Good care of the whole child

c. Diet therapy

d. Psychotherapy if necessary

9. Prognosis

The prognosis depends on the mental and physical handicap the child has and on the adequacy of medical and environmental management. If the child has adequate treatment and was mentally normal at the beginning of the illness, the child can expect to remain essentially normal throughout life.

Public understanding of disease is certainly needed as there are states that have laws forbidding the epileptic to drive an automobile, to work in certain occupations, or to marry.

LEARNING ACTIVITIES - continued

Review Exercise on Convulsive Disorders

Directions: Answer the following questions by filling in the blanks.

1. The most frequent cause of convulsions in children is: ____________________

____

2. Describe grand mal seizures. ____________________

____

3. Describe petit mal seizures. ____________________

____

4. List five (5) drugs used in controlling seizures and state what type of seizure they're indicated for.

a. ______________ ______________

b. ______________ ______________

c. ______________ ______________

d. ______________ ______________

e. ______________ ______________

5. Describe the nursing care for the patient having a grand mal seizure.

____

____

____

____

6. List the six aspects of a seizure with a brief explaination about each.

a. ____

b. ____

c. ____

d. ____

e. ____

f. ____

ANTIEPILEPTIC DRUGS

CLASS	DRUG	TRADE NAME	USUAL INDICATION	RECOMMENDED DOSE	COMMENTS
Barbiturates	Phenobarbital	Luminal	Grand Mal Seizure	3-6 mg/kg/day	Drug of choice
	Mephobarbital	Mebaral	Grand Mal Seizure		More expensive than luminal
	Primidone	Mysoline	Grand Mal Seizure		Alternate to phenobarbital
Hydantoins	Dipenylhydantoin	Dilantin	Grand Mal Seizure	6-12 mg/kg/day	Drug of choice
	Mephenytoin	Mesantoin	Grand Mal Seizure		Use limited by toxicity
Succinimides	Ethosuximide	Zarontin	Petite Mal Seizure	15-30 mg/kg/day	Drug of choice
	Methsuximide	Celontin	Petite Mal Seizure		Less effective than zarontin
	Phensuximide	Milontin	Petite Mal Seizure		Less effective than celontin
Oxazolidinediones	Trimethadione	Tridione	Petite Mal Seizure	30-60 mg/kg/day	More toxic than zarontin
	Paramethadione	Paradione	Petite Mal seizure		Alternate to tridione
Benzodiazepines	Diazepam	Valium	Infantile Seizure		Drug of choice
Other	Carbamazepine	Tegretol	Grand Mal Seizure	12-24 mg/kg/day	Approved by FDA for antiepileptic use (questionable side effects)
	Corticotropin	Acthar Gel	Infantile Seizure		Drug of choice

LEARNING ACTIVITIES - continued

ACTIVITY #6. Retardation

Directions: Read the following and read your text according to the pages listed in this activity.

I. Mental Retardation (Read your text, page 696.)

Definition

Mental retardation is any interference with intelligence (abstract thinking) that causes a limitation in the way the child is able to adapt to the environment. It is not a disease entity but it is a complex of symptoms due to a variety of causes.

Incidence

Three to four percent of all children born in the United States will at some time in their lives be classified as mentally retarded. More than 100,000 infants born each year will join this group. One of every ten Americans is directly involved with this problem because a mentally retarded person is in his or her family.

Cause

A. Heredity may be the cause

B. Other factors

1. Prenatal causes
    a. PKU
    b. Hypothyroidism
    c. Mongolism
    d. Maternal infections (German Measles or Syphilis)
2. Neonatal causes
    a. Intracranial hemorrhage
    b. Anoxia
    c. Birth trauma
3. Postnatal causes
    a. Intracranial hemorrhage
    b. Infection such as menengitis
    c. Poisoning

LEARNING ACTIVITIES - continued

d. Cerebrovascular thrombosis

e. Anoxia

f. Neoplasms

g. Recurrent convulsions

Diagnosis

A definite diagnosis of mental retardation is made only after a thorough study of the family and the child.

CLASSIFICATION AND CLINICAL MANIFESTATION

Mild I.Q. 53-69 Educable Mental Age: 6-10	Often not noticed as retarded by casual observers; but, is slower to walk, feed self, and talk than most children.	Can acquire practical skills and useful reading and arithmetic to a third to sixth grade level with special education. Can be guided toward social conformity.	Can usually achieve social and vocational skills adequate for self-maintenance; may need occasional guidance and support when under unusual social or economic stress.
Moderate I.Q. 36-52 Trainable Mental Age: 4-6	Noticeable delays in motor development, especially in speech; responds to training in various self-help activities.	Can learn simple communication, elementary health and safety habits, and simple manual skills; usually does not progress in fuctional reading or arithmetic.	Can perform simple tasks under sheltered conditions; participates in simple recreation, travels alone in familiar places; usually incapable of self-maintenance.
Severe I.Q. 20-35 Mental Age: 2-4	Marked delay in motor development; little or no communication skill; may respond to training in elementary self help for example, self-feeding.	Usually walks barring specific disability; has some understanding of speech and some response; can profit from systematic habit training.	Can conform to daily routines and repetitive activities; needs continuing supervision in protective environment.

LEARNING ACTIVITIES - continued

CLASSIFICATION AND CLINICAL MANIFESTATION

Profound I.Q. 0-20 Totally Dependent Mental Age: 0-2	Gross retardation; minimal capacity for functioning in sensory motor areas; needs nursing care.	Obvious delays in all areas of development; shows basic emotional responses; may respond after skillful training by using the legs, hands, and jaws; needs close supervision.	May walk, needs nursing care, has primitive speech; usually benefits from regular physical activity; in-maintenance.

Management

Plan of management includes environmental arrangements in which the child can utilize capacities to the best advantage. In general, the mentally retarded child should be kept in the home environment as long as possible; for some children institutional care is best.

Nursing care

A. View the retarded child objectively and as a whole individual

B. Be aware when normal growth and development is not occuring

C. Utilize operant conditioning behavior therapy and behavior modification in the care of retarded children. All are based on the principles of reinforcement; reward approved behavior consistently and immediately.

D. Retarded children learn from habit formation as they lack the ability to reason and transfer knowledge from one situation to another. Three R's of habit training - Routine-Repetition-Relaxation.

E. Assist and support parents in their efforts to cope and manage their retarded child.

Prognosis

Unless the child is severely retarded, the outlook for length of life is about that of a normal child.

II. Congenital Defect Leading to Retardation

A. Down's Syndrome (Mongolism) (Read your text, pages 308-310.)

Incidence

The incidence is the same among all socio-economic classes and both sexes.

LEARNING ACTIVITIES - continued

Cause

There are three known causes of mongolism, all of which are associated with chromosomal abnormalities. There is trisomy 13, trisomy 18, and trisomy 21 which is the most common abnormality in mongolism. The total chromosome count with the trisomy 21 is forty-seven instead of forty-six. This type is rarely familial, but usually occurs in children born to older women. This type occurs once in 600 births. The other two types of trisomy are rare.

Signs at birth

All need not be present in order for the diagnosis to be made

1. Infant appears Oriental
2. Head is relatively small, occiput flat and the face round
3. Eyes set close together and slant slightly upward with epicanthic fold at inner angle
4. Openings between the eyelids (palpebral fissure) are narrow
5. Brushfield's spot present on the iris of each eye
6. Nose flat
7. Tongue protrudes
8. Breathe through the mouth and may drool
9. Eruption of teeth is delayed
10. Hands are short and thick, the little finger curved
11. Creases of the palms and the prints of the feet are unlike those of normal infant. Simian crease (line extends across full length of flexed hand) may be present.
12. Wide space between first and second toe
13. Muscles underdeveloped (hypotonia)
14. Growth and development slow
15. Mental development seldom reaches beyond that of the average child of five to seven years of age

LEARNING ACTIVITIES - continued

16. Associated anomalies
    a. Atrial Septal defect
    b. Ventricular septal defect
    c. Patent ductus arteriosus
    d. Chronic myelogenous leukemia 20 times more frequent in the mongoloid population
17. Little resistance to infection

Treatment

No treatment for the condition, habilitation is important.

Prognosis

Prognosis will vary with each child.

They have little resistance to infection and may die early of a recurrent infection. Modern drug therapy has prolonged their life expectancy to some extent.

Review Exercise over Retardation

__Directions:__ Complete the following by filling in the blanks.

1. Define mental retardation. ______________________________

____

2. Define intelligence. ______________________________

____

3. Define mental age. ______________________________

____

4. Define the following terms and describe the capabilities of each child so classified.
   a. Educable ______________________________
   b. Trainable ______________________________
   c. Totally dependent ______________________________
5. List five (5) prenatal causes of mental retardation.
   a. ______________________________
   b. ______________________________

LEARNING ACTIVITIES - continued

c. ______

d. ______

e. ______

6. List two (2) neonatal causes of mental retardation.

a. ______

b. ______

7. List three (3) postnatal causes of mental retardation.

a. ______

b. ______

c. ______

8. Write a brief description about the role of the nurse in providing service to mentally retarded patients.

9. List principles for teaching self-help skills to the mentally retarded.

10. Define the three R's of habit training.

1. ______ 2. ______ 3. ______

11. Write a brief description on home care versus institutional care of the mentally retarded child.

LEARNING ACTIVITIES - continued

12. Define Down's Syndrome (mongolism). ____________________

____

____

13. How common is Down's Syndrome and who is generally affected? ____________________

____

____

____

14. List ten (10) signs of a mongoloid.

a. ____________________

b. ____________________

c. ____________________

d. ____________________

e. ____________________

f. ____________________

g. ____________________

h. ____________________

i. ____________________

j. ____________________

15. What is the best goal for a Down's Syndrome child?

____

____

____

ACTIVITY #7. Parasites

Directions: Read the following information and read your text as listed in this activity.

I. Intestinal parasitic (Read your text, pages 548-551.)

A. Enterobiasis (Pinworm infection)

Etiology

Enterobiasis is a parasitic infection produced by the pinworm. The pinworm is a white threadlike worm which invades the cecum and may enter the appendix.

LEARNING ACTIVITIES - continued

Epideminology

It is spread by person-to-person contact. The route by which reinfestation is accomplished is anus to fingers to mouth or anus to clothing to fingers to mouth.

Pathology

Pinworm eggs are swallowed, hatched in the duodenum and migrate to the cecum and the appendix. Adult worms develop from eggs in 45 days or less. The female worm, when ready lay her eggs, crawls out the anus and lays the eggs on the childs perineum (may enter vagina as well).

Incidence

The condition appears most frequently in school age children; next highest in the preschool age.

Clinical manifestations

1. Itching about the anus at night may be the only symptom.
2. Others may include
   a. Subacute appendicitis from appendiceal lesions caused by the worms at the sites of attachment
   b. Bacterial infection of the skin around the rectum
   c. Vaginitis

Diagnosis

Capturing the eggs from around the anus by scotch tape or a swab and examining it under the microscope.

Adult worms may also be seen emerging from the anus

Treatment

To destroy the ova and worms in the intestine and to prevent infections from other persons

Drugs used are

1. Piperazine citrate (Antepar) usual dosage 250 mg to 2 gm. Once daily - no side effects
2. Pyrvenium pamoate (Povan) 5 mg/kg - colors the stool and vomitus bright red

All infected persons in the household or group must be treated together.

LEARNING ACTIVITIES - continued

Nursing care

1. Educate family in the correct way to administer the anthelmintic drugs.
2. Teach the family how to prevent reinfestation.
    a. Washing hands after using the bathroom
    b. Washing hands before eating
    c. Regular bathing
    d. Frequent change of underclothing
    e. Put mittens or socks over the child's hands so he cannot pick up the eggs under fingernails when he scratches his anus.
    f. Keep fingernails short
3. Discuss with the parents that parasites are not necessarily a sign of uncleanliness so that they need not feel guilty about their child's infection.

Prognosis and treatment

Generally good

B. Ascariasis (Round Worm Infection)

Etiology

This condition is a parasitic infestation by the giant round worm, found most commonly in the lumen of the small intestines.

Epideminology

The fertile egg is capable of withstanding almost all external conditions except heat. These parasitics are found in warm climates and in the temperate zones. The egg is contained within the feces of an infected person. Where toilets are not used, eggs may be deposited upon the ground. The eggs develop in the topsoil and the children take them into their mouths on toys, contaminated fingers or food, or by eating dirt.

Pathology

In the infective stage the ascaries is swallowed and enters the duodenum, where it hatches. The larvae penetrate the intestinal wall, misenteric lymphatics and venules, commonly migrate to the liver and then proceed to the lungs through the right side of the heart.

LEARNING ACTIVITIES - continued

Incidence

Many children from ages one through ten years have ascariasis where there are unsanitary conditions.

Diagnosis

Microscopic examinations of feces for eggs

Clinical manifestations

1. Atypical pneumonia
2. Allergy
3. Intestinal symptoms such as nausea and vomiting, anorexia and loss of weight
4. Insomnia
5. Mild fever
6. Nervousness, irritability
7. Physical and mental lethargy
8. Intestinal colic - intestinal obstruction - perforation or paralytic ileas

Treatment

Drug of choice is piperazine citrate (Antepar) 1 to 35 gm. depending on the size of the child.

Preventive measures

1. Correct use of toilet
2. Turning under infested topsoil
3. All infected persons must receive treatment

Prognosis

The prognosis is excellent when appropriate anthelmentic is administered. It is good to fair when secondary complications arise, such as lobar pneumonia or intestinal obstruction or perforation.

LEARNING ACTIVITIES - continued

II. Body Parasites

A. Pediculosis (Read your text, page 755.)

Etiology

Lice are a common infestation of the scalp or the hairy parts of the body.

Epideminology

Head lice are passed around from child to child by direct contact or indirectly by contact with combs and other head gear.

Pathology

Lice lay their eggs, called nits, on the head attaching them to strands of hair. The nits hatch in about a week and the lice become sexually mature in approximately two weeks.

Types of Pediculosis

1. Pediculosis capitis - or infestation with the head louse
2. Pediculosis carporis - or infestation with the body louse
3. Pediculosis pubis - or infestation with the crab louse

Incidence

The lice are usually seen on the heads of neglected, unclean children

Clinical manifestations

1. Severe itching of the scalp
2. Scratching leads to excariation with serous, purulent, or sanguineous exudation

Treatment

1. Kill the pediculi
2. Use of Kwell shampoo
    a. lather for 4 minutes
    b. do not get in eyes
3. Clothing is dry cleaned or laundered and ironed
4. Nits may be removed by combing the hair with a fine-tooth metal comb dipped in hot vinegar
5. Hair that is long and heavily infested may need to be cut

LEARNING ACTIVITIES - continued

6. If pustulas are present on neck and face an antibiotic may be used

7. Do general health teaching - caution children not to exchange hats, combs, etc.

ACTIVITY #8. Fungus Infections

Directions: Read the following.

I. Fungus Infections of the Skin

A. Ringworm (Tinea)

Ringworm is a superficial fungus infection of the skin. Ringworm is classified according to the area of the body affected or the shape of the lesion produced. Since several fungi may cause ringworm, laboratory examination is often necessary before adequate treatment can be carried out. All types of ringworm are contagious.

1. Ringworm of the scalp (Tinea Capitis)

Etiology

Common causative agent is microsporum audouini. Transmitted by human beings and is highly infectious. Microsportum canus is transmitted from an animal to man.

Pathology

Infection may begin at the base of a single hair, but it spreads in a circular fashion, forming lesions up to 2 inches in diameter. The spores of the fungus invading the hair at the base cause the hair to break off close to the skin, leaving a bald area. The scalp becomes red and grayish scales appear. A secondary infection may occur.

Incidence

Condition practically limited to children, is common among neglected children.

Clinical manifestations

a. Child may complain of mild itching

b. Red circular lesion

Diagnosis

Diagnosis is made by examination of the scalp under a beam of ultraviolet light from a wood's lamp.

LEARNING ACTIVITIES - continued

Treatment

a. Oral administration of griseofulvin

b. Locally antifungal ointment such as Whitfield's Ointment

Nursing care

a. Instruction in the use of the medication

b. Teach parents to cover child's head with stockinet cap. This cap should be washed and boiled daily to prevent spread of infection.

Prognosis

Good.

2. Ringworm of the skin (Tinea Corpori, and Tinea Cruris)

Tinea Corporis are lesions on the neck, face, forearms, and hands. The lesions begin as round or slightly raised scaly patches. The centers of the patches clear and the periphery spreads. The outline takes on the form of a ring. Mild itching is present.

Tinea Cruris (jockstrap itch) occurs in the groin. Local warmth in the infected area causes inflammation, itching, and infection with small pustule formation.

Treatment and nursing care

a. Use of griseofulvin and topical hydrocortisone is good. Whitfield's Ointment may also be used.

b. Teach

(1) Frequent bathing with careful removal of soap

(2) Keep areas dry and clean

(3) Airation of the affected area is good and can occur if loose - fitting nonbinding clothing is worn

Prognosis

Excellent with treatment

3. Ringworm of the feet (Tinea Pedis or Athletes Foot)

Incidence

Condition is common among school children during the summer months. The infection comes from other children and adults.

LEARNING ACTIVITIES - continued

Etiology and symptoms

Tinea pedis is usually caused by E floccosum, and T. rubrum, and T. interdigitale. The infection usually appears between the toes. There is no scale formation, but the superficial epethelium is macerated and desquamates. The raw surface is often fissured. Itching is intense and pain may follow if the child rubs or scratches the area.

Treatment and nursing care

a. Ointment such as Desenex or Whitfield's Ointment

b. Soak in Burow's solution

c. Teach that foot coverings contaminated by the fungus should be sterilized or discarded

d. Light, ventilated shoes which reduce sweating are less aggravating than heavy footware

e. Encourage use of shoes in public areas

f. Those persons infected should stay away from swimming pools, gymnasiums, dressing rooms, and places where they may spread infection

Review Activity over Parasites and Fungus Infections of the Skin

Directions: Complete the following by filling in the blanks.

1. Complete the questions for the following parasites.

A. Enterobiasis

definition ____________________

infecting route ____________________

identification ____________________

treatment ____________________

B. Ascariasis

definition ____________________

infecting route ____________________

identification ____________________

treatment ____________________

2. The common name for tinea capitus is: ____________________

LEARNING ACTIVITIES - continued

3. Treatment of tinea capitus consisting of: ______________________________

   ____

4. Tinea pedis is commonly known as: ______________________________

5. Treatment of tinea pedis consists of: ______________________________

6. Pediculosis is defined as: ______________________________

7. Treatment of pediculosis consists of: ______________________________

   ____

8. Tinea Cruris occurs on what part of the body? ______________________

ACTIVITY #9. Osteomyelitis

Directions: Read your text pages 758-759, and then read the following.

Etiology

Osteomyelitis is a bacterial infection of the bone by way of the blood stream from a primary skin infection.

Incidence

Osteomyelitis is highest among children five to fourteen years of age and twice as frequent among boys as among girls.

Pathology

The causative organism commonly is hemolytic staphylococcus aureus. The bacteria enter the blood stream and are carried to the metaphysis of a bone. Here an abscess forms, ruptures, and the infection spreads along the bone under the periosteum.

Symptoms

1. Furuncle or other infection of the skin will erupt one or two weeks after trauma or infection.
2. Fever
3. Malaise
4. Septicemia
5. Pain and localized tenderness over the metaphysis of the affected bone
6. Limitation of joint motion

LEARNING ACTIVITIES - continued

Diagnosis

1. History
2. Leukocyte count of 15,000 to 25,000 or more
3. Blood culture is positive
4. X-rays do not reveal the process until five to ten days after the onset

Treatment

1. Antibiotics
2. Splint or traction is applied to the affected extremity to immobilize it and lessen the pain
3. Analgesics are given for pain
4. If an abscess forms, it is drained and the purulent material drained is cultured. If the abscess has ruptured into subperiosteal space, chronic osteomyelitis follows.

Nursing care

1. Early detection through assessment of child's condition
2. Bedrest
3. IV therapy as ordered
4. Antibiotics as ordered
5. Analgesics for pain
6. Traction or splint - do circulation checks
7. Frequent checking of vital signs
8. Appropriate recreation and socialization with peers at bedside

Prognosis

Prompt treatment brings acute osteomyelitis under control. Inadequate treatment may lead to chronic osteomyelitis.

LEARNING ACTIVITIES - continued

ACTIVITY #10. Appendicitis

Directions: Read your text 760-761, and then read the following.

Etiology

Obstruction of the lumen of the appendix is the primary cause. The obstruction may follow a generalized infection or on occasion an infestation of pinworms may be the cause.

Incidence

Appendicitis is rare during the first two years of life, but the incidence increases throughout the school years and adolescence.

Pathology

The mucosa is inflamed and ulcerated. The lumen becomes distended, thereby impairing the blood supply to the appendix. Bacteria may escape through the wall and cause diffuse peritonitis or an abscess confined by adjacent intestine and omentum.

Symptoms

1. Abrupt or follows gastroenteritis
2. Nausea
3. Vomiting
4. Abdominal pain
5. Constipation or diarrhea
6. Localized tenderness
7. Absence of peristalsis unless diarrhea is present
8. Child may not be able to localize pain and be irritable and restless
9. Mild leukocytosis
10. Fever of 99° to 102° F
11. Flushed face
12. Increased pulse and respiration
13. Sleeplessness

LEARNING ACTIVITIES - continued

Diagnosis

Diagnosis of appendicitis in childhood is difficult since a number of other conditions produce somewhat similar symptoms. Repeated examination may be necessary before a definite diagnosis is made.

Treatment

Appendectomy - surgical removal of the appendix - should be done as soon as possible after the diagnosis has been made and the child is in condition for an operation.

Nursing care

1. Preoperative
    a. NPO
    b. Hydration by the intravenous route
    c. Reduce temperature below 102° F
    d. Give antibiotics as ordered
    e. Enema may be ordered but not cathartics as increased peristaltic action may cause rupture of the appendix
2. Postoperatively
    a. NPO as ordered
    b. IV fluids
    c. Observe and report for any indications of developing absces as peritonitis - such as temperature, irritability, continued pain
    d. If all is well, diet and activity return to normal quickly and the child usually returns to school in one or two weeks

Complications

Peritonitis or a localized abscess is a complication, gastric suction, parenteral fluids and antibiotics may be ordered.

Prognosis

The operation is practically without risk if it is performed before perforations. Even after perforation occurs the risk is relatively slight although hospitalization is prolonged.

LEARNING ACTIVITIES - continued

ACTIVITY #11. Reye's Syndrome

Directions: Read your text pages 762-763, and then read the following.

Etiology

Reye's syndrome is an acute and frequently fatal condition of childhood. This illness follows a mild viral infection from which the child seems to be recovering. The cause is unknown, but it seems to be associated with an infection caused by influenza B, herpes simplex, varicella, echovirus, or other viruses.

Incidence

Reye's syndrome is relatively rare, although its incidence seems to be increasing, probably because of improved diagnosis. The age range of affected children is from two months to adolescence, with peaks occurring at six and eleven years. It occurs most often in winter and spring.

Symptoms

1. Abrupt onset
2. Protracted vomiting with dehydration
3. Change in the state of consciousness in a short period of time

   confused, delirious and stuporous
4. Slight tachycardia
5. Normal temperature and blood pressure
6. Pupillary changes
7. Decreasing sensorium
8. Hyperactive reflexes
9. Abnormal EEG
10. Metabolic derangements
11. Irregular respiratory pattern
12. Intersititial pneumonia
13. Cerebral edema
14. Increased intracranial pressure

LEARNING ACTIVITIES - continued

Four stages of the illness can be defined:

Stage I: Child comatose but can be aroused

Stage II: Child cannot be aroused but responds to stimuli with avoidance movements

Stage III: Child responds to pain by decerebrate posturing - has pupillary reflexes

Stage IV: Child is flaccid with no response to painful stimuli - no spontaneous respirations or pupillary light reflexes

Diagnosis

Clinical examination - degeneration of the liver

Laboratory studies - ↑ SGOT ↑ SGPT ↑ BUN
Blood Ammonia Level

Prognosis

Prognosis is guarded, but Reye's syndrome is not necessarily the fatal disease that some have suggested. The course of the disease is about 7 to 10 days, ending with recovery or death.

Treatment and nursing care

1. Everyone working as a team
2. Supportive care and intensive clinical monitoring of all systems (vitals-pupils) on q one hour basis
3. Reduction of intracranial pressure; corticosteroids or mannitol
4. IV therapy with electrolytes
5. Neomycin cleansing enema to reduce ammonia production by the intestinal flora
6. Peritoneal dialysis to reduce the blood ammonia level
7. Exchange transfusions
    a. Double volume blood exchange transfusion
    b. Treatment of choice
8. Phenobarbital or other anticonvulsant
    a. May be given for seizures

LEARNING ACTIVITIES - continued

9. May need to be intubated and placed on a respirator - cardiac monitor
   a. Suction as needed
   b. Good skin care
   c. Oral hygiene
   d. Eyelids closed
10. Level of consciousness
    a. Response to verbal stimulis
    b. Gag reflex
    c. Ability to move
    d. Absence or presence of decerebrate posturing
11. Major problem in helping families deal with child's illness is that little is known about this condition
12. Child usually does not remember what transpired - so reorient to time and place
13. Maintain
    a. Modesty
    b. Keep covered

ACTIVITY #12. Review Exercise over Activities 9, 10, and 11

Directions: Complete the following questions.

1. Osteomyelitis

   etiology ____

   clinical manifestations ______________________________

   ____

   treatment ____

2. Osteomyelitis stems from what type of infection? ______________

   ____

LEARNING ACTIVITIES - continued

3. Appendicitis

etiology ______________________________

clinical manifestations ______________________________

____

treatment and care ______________________________

____

____

4. What is Reye's syndrome? ______________________________

____

5. Discuss the seriousness of Reye's syndrome. ______________________________

____

____

____

____

6. What is the major thrust of nursing care of a child with Reye's syndrome?

____

____

ACTIVITY #13. Rheumatic Fever and Rheumatic Heart Disease

Directions: Read your text pages 766-776, and then read the following.

Rheumatic fever is a disease that may affect any part of the body -- particularly the heart, joints, blood vessels, skin, or brain. Damage to the heart may be serious or even fatal, but the effects on other parts of the body are usually temporary.

Rheumatic heart disease is the result of inflammation and scarring of the heart muscle and the heart valves caused by rheumatic fever. This may interfere with the work of the vital "pump" that supplies the blood our bodies need.

LEARNING ACTIVITIES - continued

Rheumatic fever and rheumatic heart disease cause more long-term disabling illness in children than any other disease. In adults, rheumatic heart disease, resulting from rheumatic fever, is an important cause of illness, disability, and premature death. Rheumatic fever tends to recur and each attack renews the risk of heart damage. However, most rheumatic fever patients who receive medical care get well completely or have so little heart damage they can work or play like anyone else.

Cause

The cause follows a Group A beta hemolytic streptococcal infection. It often starts about two to four weeks after the "strep" infection disappears, but not all "strep" infections are followed by rheumatic fever. Heredity and environmental factors are involved. Rheumatic fever cannot be transferred from one person to another, but the "strep" infection that comes before it is contagious.

Pathology

It has been proposed that the susceptible child who has frequent attacks of sore throat or tonsilitis is sensitized to the causative organism. With repeated infection, the body develops an allergic response and small nodules (aschoff bodies) may form in the connective tissue of the heart, in the serous and synovial membranes of other parts of the body, and in the brain.

Incidence

Rheumatic fever is mostly a childhood disease. It usually begins between the ages of 5 and 15, and is responsible for most of the heart trouble in children and in young adults. Some older adults get rheumatic fever too. Altogether, about one million Americans of all ages are affected by the disease. Rheumatic fever has a familial tendency. We do not know whether this is due to inheritance or to living conditions, but we do know that it is important to have the siblings of rheumatic fever patients examined. It can occur in any surroundings, but crowded homes and poor working conditions help spread "strep" infections that open the door to the disease.

Symptoms

The disease is hard to pin down. Rheumatic fever has no symptoms all its own. The warning signals are varied since any part of the body may by affected. They may include fever, pain, arthritis (migratory in character), subcutaneous nodules, anorexia, tiredness, failure to gain weight, paleness, skin rash (erythema marginatum) repeated nosebleeds, or chorea (St. Vitus Dance). Remember, none of these symptoms belongs to rheumatic fever alone. They may also warn of some other ailment. Sometimes the attack is so mild that the child may complain only of "growing pains", (mild muscle and joint pain), being tired, or may appear to be growing slowly.

The three principal clinical manifestations however are carditis, migratory polyarthritis and sydenham's chorea.

LEARNING ACTIVITIES - continued

A. Carditis

Carditis is serious as it may lead to permanent disability or death. Pericardium, myocardium, and endocardium may be affected by scarring. Temperature may rise to 104° F. Tachycardia which is disproportionate to the fever even during sleep, persists after the elevation of temperature is under control. The pulse is of poor quality. Leukocytosis, anemia and severe pallor may occur. Respirations are rapid.

B. Arthritis

The duration of involvement varies and the pain moves from one joint to another. Permanent deformities do not follow this type of arthritis. One can distinguish the pain from growing pains by studying the chart on page 52.

C. Sydenhame Chorea (St. Vitus's Dance)

This is a disorder of the central nervous system. The onset is gradual with increasing incoordination, facial grimaces and repetitive involuntary movements.

Diagnosis

The diagnosis may be difficult because many other conditions show clinical manifestations similar to those of rheumatic fever. Each laboratory test must be interpreted in the light of other test results and of the child's total clinical picture. Two commonly used indicators are erythrocyte sedimentation rate and the presence of C-reactive protein which is never present in normal blood. This protein disappears as the child's condition improves. EKG may provide evidence of carditis. The P-R interval is often prolonged in the presence of carditis.

Treatment

No specific treatment will stop the rheumatic process. Bedrest is essential until the C-reactive protein is negative, the pulse rate normal, the erythrocyte sedimentation rate decreasing, the pain gone and the hemoglobin level normal. If the work of the heart is reduced until the healing process occurs, a minimum of scar tissue in the heart results.

1. Penicillin is given to eradicate Group A streptococci from the body. Therapy is continued until C-reactive protein is negative and erythrocyte sedimentation rate is decreasing.

2. Salicylates quickly relieve fever, joint pains, and swelling

3. Symptoms of toxicity such as tinnitus, hyperpnea, purpuric manifestation, nausea, and vomiting are recorded.

4. Therapy with corticoids produces the same effects as salicylates. ACTH, prednisone or cortisone may be used. The use of corticoids must be observed carefully as steroid therapy masks symptoms. Also the steroids produce many side effects such as moon face, hirsutism, increased pigmentation, and abnormal fat distribution.

LEARNING ACTIVITIES - continued

Nursing care

1. Bedrest to reduce the work of the heart
2. Position to comfort-elevate head for dyspnea
3. Pillows provided for the support of arms. This will reduce the weight of the child's shoulders and also proper height of the pillows will make it easier for the child to expand the chest.
4. Child's legs in proper alignment and feet supported with a footboard to prevent food drop, and external rotation of the hips.
5. Provide long periods of rest
6. Move unnecessarily as little as possible - movement causes pain.
7. Frequent skin care, due to constant pressure on skin which is edematous, wet with perspiration and very warm because of fever. Lotion to elbows and frequent turning.
8. Nursing records must be complete and specific
9. Vital signs are monitored carefully especially the rate and nature of the pulse. Pulse also may be taken when the child is sleeping as well as when awake.
10. I and O.
11. When permitted there is a gradual increase in the child's ability to do own care and participate in activity.
12. Provide recreational and occupational therapy to prevent the child from becoming depressed.
13. If the child convalesces at home, plans need to be made so that the home atmosphere still provides adequate rest time.
14. Stress the need for follow-up appointments.

Prognosis and prevention

Prognosis is related primarily to the presence of heart disease. Most chronic disabilities and most deaths occur in the presence of repeated attacks. Supportive prophylactic therapy has greatly reduced the incidence of death and chronic disability. Patients with rheumatic heart disease are susceptible to subacute bacterial endocarditis. Adequate protection with penicillin or erythromycin should be given during surgical or dental procedures.

The prevention of rheumatic fever lies in the prevention of infection with Group A beta hemolytic streptococci.

LEARNING ACTIVITIES - continued

Recurrence must be prevented since each attack increases the threat of additional cardiac damage. The child should be kept from persons with upper respiratory tract infections. Ideally, one should live in a warm climate and in an uncrowded environment. As a prophylactic measure, benzathine penicillin is given monthly by intramuscular injection or penicillin or sulfadiazine is given by mouth daily indefinitely after the initial attack.

LEARNING ACTIVITIES - continued

DIFFERENCES BETWEEN RHEUMATIC FEVER AND "GROWING PAINS"

	Non-Rheumatic "Growing Pains"	Rheumatic Fever
Age at Onset	Growing pains usually occur in early childhood and often continues through adolescence.	Rheumatic fever occurs most commonly between six and seven years of age. It often occurs in attacks following upper respiratory infections or other infectious diseases.
Time of Pain	At the end of the day especially during the night. Pain often will awaken the child several times at night. The pain is gone in the morning and usually does not occur during the day. Pain often relieved by massage.	Joint pains occur on first getting out of bed in the morning and during the entire day especially when moving. The pain often causes the child to limp. The child feels better when warm in bed. The pain is not relieved by massage.
Location of Pain	The pain most commonly occurs in muscles of the legs and thighs — rarely in muscles of upper extremities. Occasionally involves knee joints.	The pain is in joints of both the upper and the lower extremities.
Other Signs of Rheumatic Activity	Usually none.	Repeated bouts of joint pains, nosebleeds, characteristic skin rash, pallor, fever, etc.
Objective Signs in Joints	None.	Joints often have slight, increased, local heat and mild swelling usually overlooked by patient and parent.
Family History of Rheumatic Fever	Uncommon.	Common.
Laboratory	Normal sedimentation rate. Normal leucocyte count. Normal hemoglobin.	Increased sedimentation rate. Mild increase in leucocyte count. Moderately decreased hemoglobin.

LEARNING ACTIVITIES - continued

Review Exercise over Rheumatic Fever

Directions: Complete the following by filling in the blanks.

1. Rheumatic fever occurs as one of the sequelae of Group A beta hemolytic streptococcal infections. Another complication is: ____________________

2. Rheumatic fever is an important cause of death or disabilty in children between ____________________ and ____________________ years of life.

3. Define and describe the three (3) principal and two (2) other clinical manifestations of rheumatic fever.

   a. Polyarthritis ____________________

   b. Chorea (Sydenham's chorea) ____________________

   ____

   c. Carditis ____________________

   ____

   d. Subcutaneous nodules ____________________

   ____

   e. Erythema marginatum ____________________

   ____

4. The chief nursing responsibility in caring for the rheumatic fever patient is:

   ____

5. List three (3) medications commonly used in rheumatic fever.

   1. ______________ 2. ______________ 3. ______________

6. The safe dosage of aspirin for the child under age 5 is: ____________________

7. Signs of aspirin toxicity include:

   ____

8. What is the drug of choice for prophylactic treatment of rheumatic fever?

   ____

9. How long is it recommended for the rheumatic heart patient to stay on a prophylactic treatment of antibiotics? ____________________

LEARNING ACTIVITIES - continued

10. Write a brief description about the emotional aspects of rheumatic fever.

____

____

ACTIVITY #14. Legg - Calve - Perthes Disease (Perthes Disease, Coxa Plana)

Directions: Read your text pages 797-798, then read the following.

Perthes' disease is an aseptic necrosis of the head of the femur. The cause is unknown.

Incidence

It is a self-limited disease occurring in children between four and ten years of age. The usual course of this disease is from three to four years. The condition affects boys more frequently than girls, possibly as a result of trauma to the hip. Study the diagram on the following page.

Pathology

The pathology may be divided into three stages, each lasting about nine months to a year.

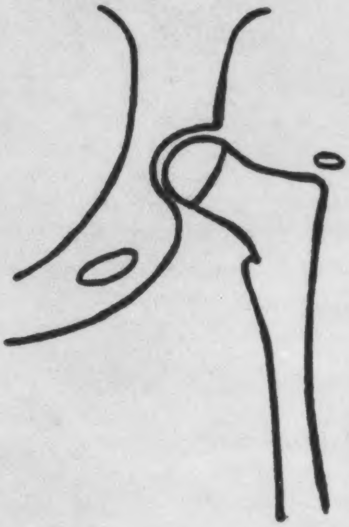
Stage I: Aseptic necrosis of the bone.

Stage II: The episphysis is fragmented and mottled.

Stage III: Reossification where the head of the femur shows gradual reforming.

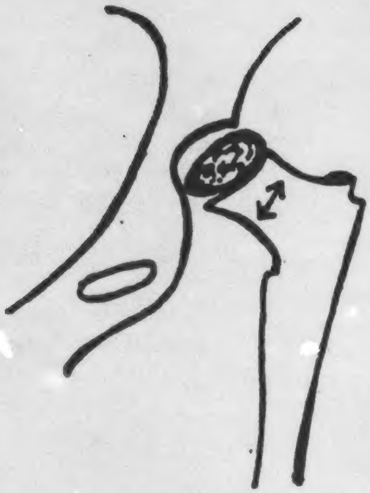
LEARNING ACTIVITIES - continued

Healthy Femur and
Hip Joint



diaphysis primary
center of ossification

Dieseased Femur
and Hip Joint



epiphysis
flattened
loss of boney mass

neck of femur
thickened

LEARNING ACTIVITIES - continued

Symptoms

Limp and pain in the hip. The pain is often referred to the knee. Motion is usually restricted only in relation to abduction and rotation.

Treatment

Most important point in treatment is avoidance of weight placed on the leg; the head of the femur tends to become flattened and mushroom shaped. Later in life degenerative changes occur because of discrepancies in shape between the acetabulum and the head of the femur. Some physicians believe that the child should have complete rest and traction on the leg, and others immobilize the hip by surgery, casts, or braces to prevent deformity resulting from weight bearing.

Nursing care

1. Stress to both child and parents no weight bearing on the affected leg.

2. If the child is in traction, stress the use of other joints and muscles.

3. Most difficult aspect in the care is the necessity of prolonged immobility. A great challenge for the nurse is to provide activities to keep the child occupied.

Prognosis

The younger the child at the onset of the condition, the more likely the child is to retain a spherical rather than to acquire a deformed flattened head of the femur. Complete recovery depends on when treatment was given and whether gross deformity of the hip occurred.

ACTIVITY #15. Enuresis

Directions: Read your text, page 807, and then read the following.

Enuresis is bed wetting, especially at night, after the age when toilet training should have been completed.

Incidence

Many children do not acquire complete nightime control before 5 to 7 years of age, and an occasional bed wetting may be seen in children as late as 9 or 10 years of age. Boys have more difficulty than girls, and in some cases enuresis may persist into the adult years. Although these children are usually normal, they should have a physical examination to rule out such conditions as diabetes mellitus, or nocturnal epilepsy.

Cause and treatment

1. Inadequate bladder capacity due to delayed bladder development

LEARNING ACTIVITIES - continued

Treatment

Increase bladder capacity by having the child retain progressively larger amounts of fluid during the day.

2. Personality or character maladjustments

   Treatment

   Psychiatric help

3. Jealousy of a new sibling, revenge enuresis, or regressive and nervous because of lack of love from parents

   Treatment

   Changing the parents' attitude toward the child so that they can give more love

NOTE: Nagging and punishment will only increase the child's anxiety. Efforts should be made to discover the cause of emotional stress.

Nursing care

Support parents by listening to their feelings and concerns. Sometimes such support will improve the parent-child relationship and produce an improvement in the child's behavior. In more complex problems, the nurse can assist in referral of the family to sources for further counseling.

ACTIVITY #16. Review Exercise over Activities 14 and 15

Directions: Complete the following.

1. Legg-Calve Perthe's Disease

   etiology ____

   clinical manifestations ______________________________

   ____

   treatment _______________________________________

2. What is the most difficult aspect in the care of Legg - Calve Perthes Disease?

   ____

   ____

   ____

LEARNING ACTIVITIES - concluded

3. Define enuresis. ______________________________

   ____

4. List three (3) possible causes of enuresis.

   a. ______________________________

   b. ______________________________

   c. ______________________________

NURSING CARE OF CHILDREN

Module G - The Adolescent

RATIONALE

Adolescence is a period of development characterized by physiological and emotional changes which make adolescents often perform in manners strange to themselves and to their families. The nurse must be familiar with physical and developmental characteristics of adolescents to meet their nursing needs.

PERFORMANCE OBJECTIVES

To the instructor's satisfaction, you will:

1. Identify growth and development of the adolescent.
2. Identify the physical, emotional, and intellectual needs of the adolescent.
3. Identify signs, symptoms, and treatments of conditions common to the adolescent.
4. Identify the appropriate nursing skills to meet the needs of the adolescent.

CLINICAL OBJECTIVES

In the clinical area and to the instructor's satisfaction, the student will:

1. Differentiate the normal growing and developing of adolescent with one who has problems in growth and development.
2. Assess the interaction between parents and the adolescent.
3. Formulate a plan and execute nursing care appropriate for the adolescent's condition.

LEARNING ACTIVITIES

Directions: All the material needed to complete this module is included in this section and in Marlow, Textbook of Pediatric Nursing. The written exercises provided will help you to learn the material and to prepare for the test. Unannounced quizzes may be given. Don't forget, if you find words you do not understand, look in the terminology section of this unit or in a medical dictionary.

LEARNING ACTIVITIES - continued

ACTIVITY #1. Normal Growth and Development of the Adolescent

Directions: Read the following on the growth and development of the adolescent. This information relates to the normal, average adolescent and behavior will vary from person to person.

This is the time in the teenagers' lives when they are trying to build a sense of identity of their own, and may tend to separate themselves to some degree physically and emotionally from their family. Parents must learn to build new lives of their own and stand in the background, watching their adolescents with increasing maturity proceed to shape their own lives.

I. Thirteen Years

The thirteen-year-olds are apt to be withdrawn and moody. They spend time alone in their rooms worrying about popularity, school, money, and the future. Girls tend to criticize mother while at home, but not outside the home. Boys are probably concerned about voice changes.

II. Fourteen Years

The fourteen-year-olds are friendly, joyous, straightforward, and live on the telephone. Fourteen-year-olds are generally loud and groups of them are noisy but happy.

III. Fifteen Years

The fifteen-year-olds seem to have had a terrible "relapse" in behavior. They may be sullen, restless, and self-critical but "hard boiled" -- the mixed-up adolescent. At this age, they are farthest away from the family unit and may even withdraw from the family circle.

IV. Sixteen Years

Sweet sixteen! The sixteen-year-olds are usually happy, friendly, even-tempered, and self-assured. They become aware that parents have finally "learned" something in the past few months.

Identity vs. Identity Diffusion

The following information portrays adolescents in a period of identity vs. identity diffusion as they mature through puberty to adulthood.

Adolescence begins with the onset of physical maturity while the individual continues the development of personality and learns problem solving techniques. It can be divided into three stages: early adolescence where they must adapt to body changes; middle adolescence where they emancipate themselves from the family, and late adolescence which is mostly involved with identity formation. Idealism blossoms as they desire to reform the world.

LEARNING ACTIVITIES - continued

Adolescents have an over-exaggerated concern with themselves and will ignore or rebel against anyone they believe is not allowing them to be individuals. They are learning risk-taking, self-reliance, and using good judgment. The biggest factor influencing their behavior is the peer group, but they do relate with other adults of the same sex (showing the need to be dependent on someone but independent of parents).

In general, adolescents are very insecure and would rather suffer pain than embarrassment or suffer anything that will stigmatize their standing in the group. Interest in the opposite sex and dating predominates.

Adolescents who are not able to face themselves and life squarely, who have feelings of self-diffusion may become delinquent, neurotic, or psychotic. The outcome of the adolescents' struggle to establish their sense of identity is dependent largely on what their personality development was during childhood.

Characteristics of the Adolescent

At no other time in an individual's life does one's view of one's self change and develop so rapidly.

Adolescents have ambivalent feelings in their wishes for independence. The adolescent wants both to mature into the interdependence of the large world and at the same time regress into the dependence and security of the family home.

Many psychologic changes occur during adolescence one of which is establishment of identity. Because of the rapid changes in body development, young people have difficulty in forming a clear image of themselves.

Teenagers are most vulnerable to peer pressure and tend to be swayed by an emotional tide to uncertainties while getting a clear self image. However, one function of the peer group is to defend the adolescent from uncertainty through the security of membership within the group.

Sexual urges are at their strongest in adolescence. How the youngster copes with them is influenced by many factors.

During pubesence and adolescence, sex makes more of a difference than ever in play and work interests.

The young person must also begin to assess his or her actual and potential abilities and select a career.

Maturity-Intimacy vs. Isolation

During this stage of an individual's life, an adolescent begins working on a philosophy of life. Personality development may include:

1. Stable actions

2. Realistic code of values

LEARNING ACTIVITIES - continued

3. Ability to wait for rewards

4. Tolerance of self and others; not merely "putting up with"

5. Self-confidence with a personal objective for one's life derived from a realistic view of one's abilities:

    a. Participate in activities of value for self and others

    b. Recognize own defense mechanisms and why they are necessary

    c. Thus, has a self-confident attitude

6. Can give as well as receive; does not think of what they will get in return; can receive graciously

7. Effective heterosexual adjustment or love relationship (does not necessarily mean marriage):

    a. Able to give without receiving in return

    b. Forerunner of having children or being responsible for other's children. (Must be able to give to children expecting nothing in return.)

    c. Able to enjoy non-sexual as well as sexual interests

    d. Masculine and feminine roles complementary rather than competitive

8. Environment is mastered:

    a. Pleasure gained from planning and organizing more than the outcome

    b. Outlets for handling aggression and hostility that are socially acceptable

9. Basic changes in personality:

    a. I.D. remains the same

    b. Ego dominant factor in personality showing adaptability between needs of I.D., Superego, and reality

    c. Characteristics:

        (1) Cope with all anxieties when similar to formerly handled problems

        (2) Greater satisfactions can be enjoyed without associated guilt

        (3) Considerable stress tolerated

LEARNING ACTIVITIES - continued

d. Superego:

(1) Appropriate warnings rather than serving to punish

(2) Guilt experienced but is conscious rather than unconscious

(3) The Superego is hence less threatening

e. Mature people do not feel obligated to use any old patterns of adjustment if they are inadequate; they will explore new possibilities rather than those that are products of childhood.

Overview of Physical and Mental Development

Pubescence is associated with reaching sexual maturity. During the year or two preceeding puberty, rapid changes occur in the rate of growth in weight and height, in body contours and physiology of the body as a result of maturation of the gonad hormonal activity.

Physical Development in Girls

In girls, puberty comes with the onset of menstruation between 12 and 16 years of age. Before the menarche (first menus) occurs, however, other physical changes will appear. At about nine or ten years of age the girl starts to grow taller, the pelvis widens, nipples and breast enlarge, pubic hair appears, and the external genitalia begin to develop. There is an increase in weight as fat is deposited in the breasts, hips, thighs, and shoulders. The internal reproductive organs grow rapidly in size and will achieve their full development by adulthood. With the onset of menstruation there is a tapering off in the gain of weight and height and auxillary hair begins to appear. Ovulation probably begins 12 to 18 months after the menarche, the secretion of growth hormone slows down, the ends of the long bone gradually knit to the shaft, and further growth becomes impossible. The final height the young girl will reach will generally be within 4 inches of her height at the beginning of menstruation.

Physical Development in Boys

Prepubertal height spurts do not appear in boys as early as they do in girls. From the eleventh year on, boys will start growing taller. The earliest growth shows up in the legs and gives the impression of the gangling youth. Muscular development begins and shoulder girdle widens and becomes heavier. Gradually, the boys gain control over their extremities as their trunk becomes longer. Since the reproductive organs are external, growth is readily visible by about 13 or 14 years of age. Pubic hair appears, followed by axillary hair and down on the upper lip. The voice begins to change as the larynx enlarges, and the boy may have difficulty in controlling pitch. About the age of 15 or 16 male sperm can be found in the urine. Boys began to have nocturnal emissions, the loss of seminal fluid during sleep. Nocturnal emissions are due to the activity of the sexual glands, and occasional release of spermatic fluid during sleep should cause no concern. Facial and body hair appear about 16 or 17, and the skeletal growth is usually arrested by 21 years of age.

LEARNING ACTIVITIES - continued

Mental Development

The formal operational stage (11 to 15 years), according to Peaget is the final stage of cognitive development.
While the younger child needed real situations in order to deal with problems, adolescents can deal with problems not having a basis in the here and now. They are able to solve purely abstract problems and those on a verbal level. They can formulate hypotheses and construct theories.

Adolescents dream and plan into the future. Since learning continues for indiviuals through their whole life span, these dreams and plans change. The individual, nevertheless, will continue to think and learn and to develop their cognitive abilities through continued use.

Sexuality in the Adolescents

The genital period of development is from approximately 11 to 16 years of age. This is a period when there is a great surge of genital sexual development. Masturbation and sexual fantasies are common during this period.

Even though the adolescence is not sexually mature, his or her genitalia are mature and capable of reproduction.

The female has a much more diffuse awareness of sexual feelings and occurs at a later age than in the male. The physiologic changes in a female are less obvious; the young girls social and sexual contacts, especially with males, provide her with most of her learning.

Young boys central concern is masturbation. Girls mastubate to a lesser degree. Adolescents should be informed that masturbation is a normal response to an increase in sexual development. This allows the adolescent a way to control the new urges and a way of working out new relationships through fantasy. The adolescent learns through masturbation that the erection of the penis or the clitoris occurs. This gives the adolescent a sense of mastery over sexual impulses and capabilites and helps the adolescent prepare for heterosexual relationships.

Frequently, adolescent boys apply intense pressure on girls to engage in sex. Strangely enough, once they succeed, the boys sexual experimentation is fulfilled and he begins to look for another kind of relationship.

Premarital sexual experience among teenage girls is increasing, perhaps because of the use of contraceptives. However, most young women do not begin to use contraceptives until after their first sexual experience. In spite of the upswing in the use of contraceptives, pregnancies among unmarried adolescence is at an all-time high.

Pubescents and adolescents have a great need for education about sexuality. Sex education should probably come from the parents. However, not all parents have the ability to teach the subject or know enough about their own bodies to be able to teach someone else.

LEARNING ACTIVITIES - continued

Three primary conditions are essential for heterosexual development.

1. The parent of the same sex must not be so weak or so punishing that the child cannot identify with that parent.
2. The parent of the opposite sex must not be so seductive, punishing, or emotionally eractic that the child cannot trust members of the opposite sex.
3. The parent must not systematically reject the child's biological sex or try to teach the child cross-sex behavior.

Lack of information regarding the physical and emotional changes that they face during puberty and adolescence is a serious problem for them.

Guidance of the Adolescent

Principles of guidance.

1. Privacy
   a. As much privacy as possible
   b. Show interest but not too intrusive
2. Communication
   a. Spend time with them and talk to them
   b. Most important is listen to them
3. Praise, reassurance, and criticism
   a. Praise and reassure so that the adolescent need not go to extremes for self-assurance
   b. Avoid ridicule - make constructive criticism
4. Privileges and restrictions: Liberties and responsiblities
   a. Need restriction but too many cause resentments and resistance
   b. With each new privilege, give the restriction
   c. With liberties also goes responsiblity
5. Earning versus spending

   Assist the teenager in meeting his or her overwhelming wants by having him or her share in the cost.

Nutrition

Adolescent is a period of rapid growth, therefore, they must receive adequate nutrition.

LEARNING ACTIVITIES - continued

Adolescents have no problem with their appetite, it is a matter of educating them in the need for essential food and not junk food. The adolescent should receive up to 60 gm. of protein a day.

As soon as interest in personal appearance develops, young women especially may resent the fact that they seem to be gaining too much weight. They then go on "crash diets" that may endanger their health. Both parents and school personnel should educate young people in the essentials of a good diet.

Review Activity over Adolescent Growth and Development

__Directions:__ Complete the following by filling in the blanks.

1. Define the following:

   a. puberty - ____

   ____

   b. menarche - ____

   ____

   c. adolescence - ____

   ____

   d. nocturnal emissions - ____

   ____

2. Describe the physical changes occurring in the girl during puberty.

   ____

   ____

3. Describe the physical changes occurring in the boy during puberty.

   ____

   ____

4. According to Erikson, the developmental task for the adolescent is:

   ____

   ____

5. List five (5) principles useful in the guidance of the adolescent.

   a. ____

   b. ____

LEARNING ACTIVITIES - continued

c. ____

d. ____

e. ____

6. What is the protein requirement for the adolescent?

____

____

ACTIVITY #2. Concerns of the Adolescent

Directions: Read your text, Textbook of Pediatric Nursing, pages 846 to 852. Then read the following.

Most adolescents have concerns about sexual growth and development. The adolescents who appear to be the most sophisticated are in reality the individuals who are most confused and concerned.

A. Premenstrual Syndrome

Definition

This is a period immediately preceeding menses, from one to three or up to 12 days before the period starts.

Symptoms

1. Nervous tension
2. Depression
3. Irritability
4. Anxiety
5. Bloated feeling of abdomen and breast
6. Leg pain
7. Tightness of skin
8. Swollen fingers and legs
9. Headache, dizziness and palpitations occur

Cause

The actual cause of the premenstrual syndrome is a mystery because it is so complex in nature.

LEARNING ACTIVITIES - continued

Effects

1. Poor achievement
2. Problems in the home
3. Increase in emotional upset

Therapy

1. Examination to rule abnormalities
2. Explanation and reassurance
3. Diversionary activity
4. Reduction of individual workload
5. Avoid critical examination
6. Diuretics and tranquilizers to relieve fluid retention and irritability
7. Elimination of stress
8. Exercise during premenstrual phase

Prevention

Begins with prepubescent years by adequately preparing each child for the process of menstruation as a normal body function. The development of a healthy attitude toward menstruation will prevent minor symptoms from developing into a major problem.

Nursing role

1. Counseling
2. Support
3. Education
4. Referral if necessary

B. Menorrhagia (Dysfunctional uterine bleeding)

Definition

A period of time when there is absence, irregularly, or scanty to excessive flow during the menstural period.

LEARNING ACTIVITIES - continued

Cause

The cause of menorrhagia may be due to an imbalance in secretion of hormones. It may take a period of months to achieve hormonal balance. These cycles are usually anovulatory (not accompanied with the discharge of an ovum).

Treatment:

Anovulatory cycles may be considered normal for the first 1 to 3 years after menarche but complete physical exam should be made to rule out organic causes.

If no organic cause for dysfunctional uterine bleeding can be found, the adolescent should be given a high protein diet with vitamin and iron supplement. Occasionally oral progestins may be helpful.

C. Dysmenorrhea

Definition: Dysmenorrhea is better known as "menstrual cramps."

Types

1. Primary - Pelvic organs normal
2. Secondary - Know organic pathology such as endometriosis or pelvic inflamatory disease. Treatment is directed toward the cause.

Cause

Primary is believed to be due to muscle spasms of the uterus compounded by nervous tension, possibly related to sexual conflicts. May be due to hormone imbalance, cervical obstruction or poor posture.

Symptoms

1. Abdominal discomfort
2. Nausea, vomiting
3. Pallor
4. Sweating
5. Syncope

Treatment

1. Warm bath
2. Heating pad applied to abdomen or lower back
3. Exercise

LEARNING ACTIVITIES - continued

4. Good posture
5. Mild analgesic
6. Diuretics of signs of premenstrual tension and fluid retention are present
7. Oral contraceptives may be helpful

D. Breast size during the menstrual cycle

The breasts respond to the estrogen and progesterone that are increased in amounts during the menstrual cycle. In addition, fluid retention, which occurs after ovulation contributes to a change in breast size. Therefore, breast examination should be done during the early cycle phase permitting greater palpatory acuity.

E. Gynecomastia

This is an enlargement of mammary tissue in the male. It occurs in about two thirds of boys to some degree at puberty. It may be due to excessive secretion of estrogen as well as androgen by the testies at puberty. This usually disappears within two years.

Cynecomastia may be inherited or infrequently it may be associated with interstitial cell tumors of the testies or feminizing tumors of the adrenal gland. Pseudogynecomastia is a condition caused by an increased amount of fat on the anterior chest wall of obese boys.

Treatment involves reassuring the youth and his parents that the condition is transient.

F. Size of the Penis

Since the adolescent is extremely concerned with his physical self, any deviation from what he considers to be normal can be a source of extreme self-consciousness.

The adolescent can be informed that the size of the genital organ has no relationship at all with sexual drives or the ability to give pleasure to the opposite sex during intercourse, what is normal varies greatly among healthy young males.

G. Acne Vulgaris

Definition

Acne vulgaris is an inflammatory condition of the skin that occurs in and around sebaceous glands during the adolescence especially.

LEARNING ACTIVITIES - continued

Cause

Cause is usually related to a combination of hereditary and endocrine factors. The sebaceous glands become overactive, secreting increased amounts of sebum; they then become plugged. When the plug is exposed to the air, a blackhead is formed because the surface turns black or dark brown. If the gland has produced increased sebum but does not open onto the surface of the skin, a whitehead is formed. The inflammatory lesion appears to be a result of the irritant action of sebum. These eruptions generally heal without scarring. However if they are deep in the dermis, a papule forms that is likely to develop into an abscess like lesion. Scar formation may result.

Incidence

Both sexes and most common areas affected are the forehead, chin, and cheeks. The back, shoulders, and chest may be involved.

Symptoms

1. Blackheads
2. Whiteheads
3. Papules or pustules

Factors that provoke acne

1. Diet - question of nuts, chocolate, cola drinks may increase occurrance
2. Climate - worsens during the cold months - ultra violet ray may improve
3. Emotional problems
4. External occurrances - habitual manipulation of the skin - irritating cosmetics

Treatment

1. Treat early
2. A regular diet
3. Adequate sleep
4. Reduction of emotional tension
5. Adequate cleanliness of the skin at least three times a day - soap substitute containing sulfur and salicyclic acid (Fostex) may be better tolerated and more effective than soap
6. Application of preparation containing sulfur and salicylic acid, benzole peroxide and resorcinal, a keratolytic or peeling agent.

LEARNING ACTIVITIES - continued

7. Ultra violet irradiation weekly

8. Comedones (blackheads) and pustular lesion removed with comedone extractor

9. Severe acne, systemic antibiotic by physician may be necessary

Nursing responsibility

1. Assessment of how the individual feels about appearance and relationship with peers

2. Plan of care for adolescents is to help them develop a positive self-image and to prevent permanent scarring of the affected areas

3. Most important listen to what the adolescent has to say

4. Warn the adolescent against picking or squeezing the pimples

5. Cream or suntan lotion should not be applied to the affected area as the grease or oil may plug the follicles

Prognosis

Acne vulgaris is usually relieved as adolescence is completed at about 20 years of age, although it may persist into the forth or fifth decade of life.

H. Obesity

Definition

Obesity is another condition that can have an adverse effect on an adolescent's self-image. Obesity means simply an excessive accumulation of fatty subcutaneous tissue.

Incidence

It is a common problem in adolescents of both sexes. It is more frequent in the lower socioeconomic class because dietary habits involving foods contain large amounts of starch and fat.

Etiology

1. Mainly caused by overeating with inactivity

2. Hereditary

3. Familiar

4. Emotional difficulties - unhappy, withdrawn adolescent may develop an excessive appetite in order to try to escape from a difficult environment

5. Can be due to endocrine problems, hypothyroidism or hyperadenocorticism

LEARNING ACTIVITIES - continued

Symptoms

1. Usually taller than average for age
2. Usually inactive
3. Facial features often appear fine or small
4. Collection of adipose tissue in the breast region
5. Pendulous abdomens with stria
6. Boys external genitalia seem small due to the fact they are buried in pubic fat
7. Clumsy and unable to take part successfully in competitive games
8. Flat feet and knock-knees are common

Diagnosis

1. Rule out endocrine or physical disturbances
2. Record diet to determine whether overeating is really present
3. Evaluation of emotional status

Treatment

1. Cooperation of the adolescent and family
2. If dietary, then dietary intake reduced
3. If emotional, treatment not on diet but on management of problem areas

Prognosis

Prognosis depends on the extent of cooperation among parents, child and physician. If even the best treatment ordered is not followed, there will be no weight reduction.

ACTIVITY #3. Othopedic Disorders of the Adolescent

Directions: Read your text, Textbook of Pediatric Nursing, page 870 to 876, and then read the following.

A. Scoliosis

Definition

Scoliosis is an S-shaped lateral curvature usually associated with rotation of the spine.

LEARNING ACTIVITIES - continued

Incidence

Scoliosis is most frequent between the ages of 12 and 16 years, a period of rapid growth.

Types

1. Correctable or functional scoliosis is usually caused by poor posture. It is seen especially in young persons who sit slumped over desks. Such persons can correct their scoliosis by bending toward the side of the curvature.

2. Fixed or structural scoliosis is due to changes in the shape of the vertebrae or thorax. Usually idopathic and found in young girls. Other causes may be congenital deformities, infections of the vertebrae such as occur in Pott's disease caused by tuberculoses infection, or paralytic disease such as poliomyelitis.

Symptoms

1. No pain until the later stages of disease
2. One shoulder is elevated
3. One hip may be prominent
4. The spinal curve itself may be obvious

Diagnosis

1. Physical exam
2. X-ray

Treatment

1. Well balanced diet high in proteins, vitamins and minerals
2. Postural curves corrected by improving sitting habits, general health, getting more rest and doing appropriate exercise
3. Brace may be necessary to prevent the degree of curvature from increasing
4. Plaster cast with wedging may be used to obtain maximal correction. Newer device is the Risser localizer jacket. This is a light weight cast in which the patient can walk.
5. Spinal fusion may be necessary after maximum growth has occurred
6. Harrington rods is a method of internal instrumentation which consists of distraction and compression rods that assist in correcting the curves of scoliosis.

LEARNING ACTIVITIES - continued

Nursing care

1. Assist with therapeutic exercises
2. Provide information, encouragement and support especially to the child who may fear being placed in a cast or traction

> To dare to be different
> In a world of peers,
> To be faced with constraints
> During formative years,
> To fear the unknown
> Devoid of time frames,
> To care about health
> While others play games,
> To become one's self
> With an image of being,
> That belies the distortion
> Others are seeing
>
> Beverly Anderson

3. Skin care is very important with the adolescent in a cast

Post operative care after spinal fusion

1. Promote wound healing
2. Maintenance of good movement and assessing sensation in the extremities
3. Maintenance of good aeration of the lungs
4. Alleviation of pain and anxiety
5. Comprehensive nursing care is planned to meet the patient's needs during long term treatment of scoliosis
6. Constant support for the need to continue exercise as prescribed and wearing of brace

Prognosis

Early recognition and treatment are vitally important to prevent serious deformity.

LEARNING ACTIVITIES - continued

ACTIVITY #4. Review Activity over Concerns of the Adolescent and Scoliosis

Directions: Complete the following questions.

1. Complete the following concerning the premenstrual syndrome:

   a. definition - ______________________________

   b. symptoms - ______________________________

   c. treatment - ______________________________

2. Define dysmenorrhea - ______________________________

3. What is menorrhagia? ______________________________

4. What treatment is recommended for menorrhagia? ______________________________

5. What physiologic occurence takes place during the menstrual cycle to cause breast enlargement?

____

LEARNING ACTIVITIES - continued

6. The best time for breast examination is - ______

7. Gynecomastia is defined as - ______

8. Discuss the size of the males penis in relation to his sexual capability.

9. Complete the following concerning acne vulgaris:

   a. definition - ______

   b. body regions affected - ______

   c. principle cause - ______

   d. contributing factors - ______

   e. local treatment - ______

LEARNING ACTIVITIES - continued

10. What is the chief cause of adolescent obesity? ______________________

11. List some underlying factors causing obesity. ______________________

12. In order for treatment to be successful what is necessary?

13. Discuss the two (2) types of scoliosis.

    a. ______________________

    b. ______________________

14. List four (4) ways scoliosis may be treated.

    a. ______________________

    b. ______________________

    c. ______________________

    d. ______________________

ACTIVITY #5. Illness During Adolescent

Directions: Read your text, Textbook of Pediatric Nursing, page 864, and then read the following.

A. Tuberculosis

Incidence

Adolescents seem more susceptible to the disease than persons in other age groups. The fact that adolescent girls seem to be more susceptible at an earlier age than boys may be related to their earlier maturation. Incidence is high in slums where overcrowded and poor health conditions are prevalent.

LEARNING ACTIVITIES - continued

Etiology

Tuberculosis is caused by an acid-fast bacillus, mycobacterium tuberculosis. The bovini type, caused by M. bovis in cattle and communicated to humans through dairy products is now rare in the United States due to pasteurization of milk, killing diseased cattle, and testing milk handlers for tuberculosis.

Mode of Transmission

The bacillus enters the body through the respiratory or the gastro intestinal tract. It is spread today chiefly by droplet infection or by direct contact with infected human beings.

Incubation period

Incubation period is 4 to 6 weeks exposure and a primary lesion. Relapse of a latent infection accounts for many of the active cases.

Period of communicability

As long as sputum contains infectious bacillui one can spread the infection.

Predeposing factors

1. Chronic illness
2. Fatigue
3. Malnutrition

Types of infection

1. Primary infection - occurs when the tubercle bacillus enters the body, usually in the tissue of the lungs. Individual's resistance and the number of organisms entering the body determine the extent of the disease. The primary focus usually heals spontaneously.

2. Secondary infection - usually occurs during adolescence or early in adult life either from the original focus or from reinfection. Secondary infection is a more destructive process which may include extensive inflammatory reaction with tissue destruction and cavitation. Miliary tuberculosis is widespread infection. Tuberculosis meningitis is when the acid-fast bacillus affects the meninges. Tuberculosis may also attack the bones including the head of the femur, (tuberculosis coxitis), fingers and toes (tuberculous dactylitis) and vertebrae (tuberculosis spondylitis or Pott's disease).

Symptoms

1. Malaise
2. Fatigue

LEARNING ACTIVITIES - continued

3. Anorexia
4. Weight loss
5. Irritability

Chronic symptoms

1. Cough
2. Expectoration
3. Fever
4. Hemoptysis
5. Weight loss
6. Night sweats

Diagnosis

Usually make with a tuberculin skin test and an x-ray film of the chest.

Types of skin test

1. Mantoux Test - Positive by 5 mm. in diameter with erythema and definite induration. The larger the area the greater is the risk that the child has tuberculosis infection. Most accurate test.
2. Heaf Multiple Puncture Test or Tine Test - In the tine test a stainless steel disc with four prongs precoated with concentrated old tuberculin is pressed firmly against the surface of the arm. The reaction is considered positive if the induration around one or more of the puncture sites is 2 mm. or more in diameter.

Meaning of reaction

A positive skin test is usually evidence that the person has been infected and is hypersensitive to its protein. It does not necessarily mean that the person has an active lesion. The size of the skin reaction indicates whether the result is positive or negative.

If positive then:

1. Have a physical examination
2. Temperature checked
3. Chest x-ray

LEARNING ACTIVITIES - continued

4. Blood cell count

5. Sedimentation rate

6. Sputum or gastric contents checked - small children do not expectorate but swallow sputum so gastric contents must be checked.

Treatment

1. Bedrest

2. Isolation

3. Adequate diet

4. Drugs

    a. Isoniazied (INH) - Low toxicity and is effective in preventing dissemination. Used before PAS.

    b. Aminasalicylic acid (para-amenasalicylic acid or PAS). Cause gastric irritation. PAS is valuable because it inhibits the development of resistance by the bacilli to both Streptomycin and INH.

    c. Streptomycin (SM) is given IM. Longterm treatment may be complicated by deafness and labyrinth disorder (8th crainal nerve). It is usually not used alone since streptomycin - resistant organisms rapidly emerge.

    NOTE: Treatment will fail if the patient does not take the prescribed medication.

Nursing care

1. Maintain high protein diet

2. Maintain bedrest and begin gradual activity to tolerance

3. Maintain respiratory isolation

4. Avoid direct contact with sputum

5. Teach patient to cough in a tissue, turn head, and dispose of tissue properly

6. Provide emotional support

7. Visit often

8. Provide diversional activities

9. Give medication as ordered

10. Encourage communication with significant person

LEARNING ACTIVITIES - continued

Prognosis

Primary lesion usually benign, may become an extensive infection. The younger the child the greater the danger. With secondary lesions the prognosis depends on the severity of the lesion, and sex, age, and environment of the child.

B. Infectious Mononucleosis

Definition

Infectious mononucleosis is an acute, world-wide illness, the cause of which is usually considered to be a virus. A herpes-type virus known as the EB (Epstein and Barr) Virus has appeared to be implicated in this disease.

Incidence

Condition occurs chiefly in order children and adolescents, although it may appear at any time in life. Although it is only mildly contagious, it may appear in epidemic form; however, sporadic cases are more commonly seen.

Incubation period

From one to two weeks. The period of communicability is not known.

Mode of transmission

Is by direct contact with patients or by droplet infection. The disease is commonly believed to be spread by kissing and is therefore sometimes called the "Kissing Disease".

Pathology

Infectious mononucleosis is a generalized disease which causes enlargement of lymphoid tissue throughout the body.

Symptoms

1. Fever
2. Pharyngitis
3. Tonsillitis
4. Generalized lymphadenopathy
5. Splenomegaly
6. Atypical lymphocytes
7. General malaise
8. Headache
9. Hepatites with jaundice may be a common manifestation

LEARNING ACTIVITIES - continued

Diagnosis: Based on laboratory finds.

1. Atypical lymphocytes
2. Heterophil antibody test is useful in diagnosis
3. An accurate 2 minute slide test using a small amount of finger tip blood has been developed for the diagnosis of infectious mononucleosis.

Treatment and nursing care

Treatment and nursing care are not specific and consist of symptomatic management including:

1. Bedrest
2. High caloric diet
3. Blend cool liquids to sooth sore throat
4. Inactivity is difficult, give support
5. May become depressed so listen to child, help lessen anxiety

Prognosis

Prognosis is usually good unless complications develop. Recovery is usually slow; complete return to full strength may not occur for several weeks.

C. Diabetes Mellitus

Pathology

Diabetes mellitus is a disorder in the metabolism of sugar caused by a deficiency of insulin. The pancreas produces an insufficient supply of insulin so that the ability of the body to burn, convert and store sugar is decreased. This results in sugar in the urine (glycosuria). Although, the primary cause of the disease is not clear, heredity is a predisosing factor.

Incidence

Diabetes occurs in 1 of every 2500 children under the age of 15 years. Almost 5 percent of all cases of diabetes exhibit symptoms in childhood. The disorder is not common among children, but it tends to be more serious than in later life.

Terms

Juvenile diabetes occurs when diabetes millitus has its onset before 15 years of age.

Diabetes insipidus is a disease of the pituitary or the hypothalmus.

Hyperglycemia is produced when insulin exceeds the normal threshold and causes glycosuria.

LEARNING ACTIVITIES - continued

Hypoglycemia is produced when there is less than 80 mg of sugar per 100cc of blood caused by hyperfunction of the isles of Langerhans or injection of excessive insulin.

Symptoms

In childhood, the onset of diabetes is usually abrupt.

1. Polyuria - excessive urination
2. Polydipsia - excessive thirst develops as a result of the increased need for water to aid in sugar excretion
3. Polyphagia - since the sugar is not converted and stored excessive hunger occurs
4. Weakness - this occurs since the sugar is not stored
5. Weight loss - no sugar stored, one looses weight
6. Dry and itchy skin

Acute infections and unusual emotional strain will require increased amounts of insulin for carbohydrate metabolism. When energy cannot be produced from carbohydrates, fats are utilized for energy production. When fats are oxidized incompletely, acetone and other products of fat digestion form and concentrate in blood; Ketosis results. These Ketone bodies are excreted in the urine but must be neutralized in the process. If base (OH-) is removed from the body, acidosis may result and the child becomes unconscious, comatose, and may die if adequate emergency treatment is not available.

As the acidosis develops, the skin becomes dry and flushed; nausea, vomiting, abdominal pain, dizziness and air hunger develops, resulting in coma. The urine will contain large amounts of glucose, acetonic and diacetic acid; the breath will have a fruity odor, and the lips will be cherry red. During the acute phase the child will receive IV fluids of 5% glucose in saline and insulin dosages depending on the blood sugar level, the size of the child and the results of a urine analysis. The child must be observed for type and rate of breathing, changes in color and reaction to surroundings (level of consciousness).

If children do not eat all the food on their trays, are more active than expected, or receive too large a dose of isulin, they may develop hypoglycemia, too low blood sugar. The symptoms of insulin shock, the condition that results from hypoglycemia, include hunger, irritability, dizziness, headache, silliness, pallar, drowsiness, and sweating. Mild insulin shock is usually handled by having the child drink orange juice or eat a lump of sugar, and parent and the child are so instructed by the physician. If insulin shock is not handled properly, the child will become unconscious and convulsive twitching may occur.

See the chart on the following page to help with the comparison of diabetic coma and insulin reaction.

LEARNING ACTIVITIES - continued

COMPARISON OF SYMPTOMS OF DIABETIC COMA AND INSULIN REACTION

	Diabetic Coma or Diabetic Acidosis (Hyperglycemia)	Insulin Shock (Hypoglycemia)
Onset	Slow, (days)	Sudden, (minutes)
Causes	Ignorance and neglect Intercurrent disease Emotional strain	Overdose Delayed, omitted, or lost meals. Excessive exercise before meals.
Symptoms	Thirst, headache, nausea, vomiting, abdominal pain, dim vision, constipation, shortness of breath	Inward nervousness (restlessness, tossing and turning at night), weakness, sweating, hunger, double vision, blurred vision, tingling sensations, patient may act intoxicated, stuporous convulsions.
Signs	Flushed face, rapid breathing, finally respiratory paralysis, dehydration - dry skin, rapid pulse, soft eyeballs, Acetone breath, coma, lips cherry red	Pallor Shallow respirations Sweating, pulse normal, Eyeballs normal, Pupils dilated
Urine sugar	Positive	Negative
What to do	Call physician or emergency hospital at first sign of symptoms.	If patient is able to swallow, give sugar in some form - orange juice, coca-cola or other sweet beverage, candy, at first sign of symptoms. Call physician or emergency hospital. In an emergency, glucagon is a substance that can be administered sublingual if the child can't take oral form of sugar. Glucogon acts on the liver to promote glycogen breakdown and glucose release.

LEARNING ACTIVITIES - continued

Diagnosis

1. Family history
2. Glycosuria (Diastix, Ketostix, Clinitest, and Keto-Diastix)
3. Fasting blood sugar of 200 mg. per 100 ml.
4. Glucose tolerance test may show prolonged, high levels of sugar in the blood
5. Two hour postprandial (2 hr. pp) - whereby the patient eats a meal and two hours after the meal, blood is drawn and tested for glucose. If blood sugar is above 200 mg. per 100 cc, a tentative diagnosis of diabetes is made.

Treatment

1. Diet control
   a. Quanities of food may be measured
   b. Unrestricted or free diet - it is restricted only in that excesses, such as high carbohydrate intakes are avoided. The present trend in therapy appears to be toward the unrestricted diet.
2. Insulin - 3 groups

	Rapid Action Short Duration		Intermediate in Rapidity of Action. Relatively Long in Duration.			Delayed Action Long Duration	
Type of Insulin	Regular	Semi-Lente	NPH	Lente	Globin	PZI	Ultra-Lente
Onset	1/2 hr.	1/2 hr.	2 hrs.	2 hrs.	2 hrs.	4-8 hrs.	4-8
Peak	2-4 hrs.	2-4 hrs.	8-10 hrs.	8-10	8-16	14-24	14-24
Duration	6-8 hrs.	10-12 hrs.	28-30 hrs.	20-26	up to 24	24-36	24-36 hrs. or longer

Insulin is supplied in 40 units per ml (U40) or 80 units per ml (U80) also in even more concentrate of 100 units per ml (U100). The dose of insulin is regulated by the blood sugars and qualitive testing of the urine for sugar. The urine should be checked before each meal and before bedtime. Actually, another specimen obtained 30 minutes after the initial specimen will be more accurate when tested than the first. However, obtaining the second specimen from a young child may be difficult so it is wise to test the urine each time the child voids.

LEARNING ACTIVITIES - continued

Remember there must be a balance between the diet, exercise and the insulin in order to control the diabetes. Exercise reduces the amount of insulin required for sugar metabolism. This, if strenuous activity is planned, insulin dosage must be reduced proportionately. Other factors that increase the need of insulin are infection and emotional disturbances.

Nursing care

1. Skin care to prevent infection
2. Maintenance of resistance to infection
3. Proper elimination
4. Regulation of exercise - even in hospital must exercise to regulate insulin
5. Accuracy in saving of urine specimen
6. Diet - teach child how to select diet
7. Administration of insulin - both parents and child should learn - rotation of sites to prevent atrophy of the tissue.
8. Teach the child how to keep a record of insulin, urine and diet
9. Help parents accept the diabetes and teach them about the disease.
10. Great deal of support and information needed by the adolescent as they have a great deal of concern about being different from their peers.

Prognosis

The course and prognosis depends on the accuracy of control measures. Severe degenerative lesions appear in young adults who have had diabetes mellitus for 10 to 20 years. These include arteriosclerosis with hypertension, nephropathy and retinal changes.

Review Activity over Illness During Adolescent

Directions: Fill in the blanks.

1. Complete the following concerning pulmonary tuberculosis.

infecting agent - ____

____

mode of transmission - ____

____

clinical manifestations - ______________________________________

____

LEARNING ACTIVITIES - continued

diagnostic tests -

chemotherapy -

treatment -

Pott's disease -

2. What type of isolation would a tuberculosis patient require?

3. What is the causative agent of "mono?"

4. What is another name for infectious mononucleosis?

5. Mono is treated symptomatic for what reason?

Complete the following questions.

6. Define juvenile diabetes.

7. Define diabetes insipidus.

8. The cause of diabetes mellitus is:

9. What tests do most physicians prefer for a definite diagnosis of diabetes?

LEARNING ACTIVITIES - continued

10. List five (5) symptoms that may lead the parents or nurse to suspect diabetes in a child.

a. ______________________________

b. ______________________________

c. ______________________________

d. ______________________________

e. ______________________________

11. Symptoms of diabetic acidosis (coma) include:

a. ______________________________

b. ______________________________

c. ______________________________

d. ______________________________

e. ______________________________

12. Write a brief description about the concept of "exchange lists."

____

____

13. Write the rationale for testing the second voided specimen for sugar (rather than testing the first voided specimen).

____

____

14. The tablets used for urine testing are poisonous. What could happen if they were swallowed by a child?

____

____

15. Children on long-lasting insulin frequently go into shock during the early morning hours. Evidence of this would be:

____

____

LEARNING ACTIVITIES - continued

16. Symptoms of insulin shock include:

    a. ____________________

    b. ____________________

    c. ____________________

    d. ____________________

    e. ____________________

17. Write a brief description about why it is so important to rotate the sites for insulin injections.

    ____

    ____

18. Describe how you would mix NPH and regular insulin in the same syringe.

    ____

    ____

19. The doctor has ordered 40 units of regular insulin (U-40) stat. You only have U-80 available. How many cc would you give?

    ____

20. Write the rationale for encouraging the diabetic child to exercise in the hospital.

    ____

    ____

21. Define glucagon and describe its action.

    ____

    ____

22. Why are juvenile diabetics likely to be on insulin injections for the remainder of their lives?

    ____

    ____

LEARNING ACTIVITIES - continued

23. List two (2) complications resulting from long-standing diabetes.

    a. ____

    b. ____

24. What is insulin used for? ______________________________

    ____

25. Complete the following table.

Type of Insulin	Onset of Action	Peak	Duration of Action
Regular			
Semi-Lente			
NPH (isophane)			
Lente			
Globin			
PZI (protamine zinc)			
Ultra-Lente			

ACTIVITY #6. Problems of Sexuality and the Adolescent

Directions: Read your text Textbook of Pediatric Nursing, pages 880-889, and then read the following.

The modern adolescent wants to find a meaning to life, a synthesis of its discordant values. Most adolescents want an understandable set of morals.

A. Rape

Rape is coitus without the consent of the victim.

Statutory rape is coitus with a female who is below the age of consent.

Sexual molestation noncoital sexual contact without consent.

Incidence

The incidence of reported rape is increasing at an alarming rate. Not all rapes are reported because of feelings of fear and shame of the victim. Are all that are reported valid? What about the adolescent who finds that she is pregnant out-of-wedlock. She may tell her parents that the pregnancy was the result of a rape.

LEARNING ACTIVITIES - continued

Occurance of rape

1. Anywhere at anytime
2. Rapists usually attack in own neighborhood
3. Occur usually late evening or early morning
4. Occur on isolated streets, dark lots, empty laudromats, parking lots or restrooms in public places

Victims

1. Someone who appears vulnerable to attack
2. Adolescent girl
3. Mentally retarded individual
4. Female under the influence of alcohol or drugs
5. Handicapped persons
6. Elderly women
7. Those that freely give help to others are particularly vulnerable to attack

Act of rape - Rape is a crime of aggression or violence not of sex.

Response of victim

During attack

1. Victims who resist face a greater risk of injury
2. Scratching, screaming bloody murder, pulling hair, and kicking in the crotch and then running to a populated area is the best protection
3. Clear refusal to cooperate is the best way to repel a potential rapist
4. Victim must make the decision about what to do at the beginning of an attack and then must live with it

After attack

1. Initial reaction of a victim of rape is shock and disbelief
2. It is an insult to one's personal integrity
3. Feelings of terror and being killed whether one resists or not

LEARNING ACTIVITIES - continued

Treatment

Every reported rape is a potential court case. Therefore, to protect physicians and nurses in a private office or in the emergency room of a hospital written and witnessed consent must be obtained for the following procedures of possible examination: collection of specimen, photographs, and permission to release information to the proper authorities.

The question of whether rape has occurred is a legal matter for the decision of the court; it is not a medical diagnosis.

Rape is an externally imposed crisis for the child, the family and often the community. The life style of the victim is disrupted into four major areas: physical, emotional, social, and sexual. The rape trauma involves two phases: (1) an acute phase of disorganization of life style and (2) the long-term phase in which a reorganization process occurs. This syndrome of behavioral, somatic, and psychological reactions is an acute stress reation to a highly stressful and/or life-threatening situation. The main task in the reorganization phase is to repair the disruption within each of the life style areas and to help the victim return to a pre-crisis level of health.

Nursing care

The care of a rape victim is built on three assumptions.

1. The rape provokes a situational crisis for the victim
   a. Do not leave alone. Let parents stay, they are primary support.
   b. Provide privacy
   c. Listen and be understanding of the victim.
2. The victim is a consumer in need of medical and psychologic services.
   a. Provide health education
   b. Emphasize need for follow-up care
   c. Refer to other sources of help as needed
   d. Emotional support and sympathetic understanding
3. The way in which the rape victim is treated and counseled is the practice of primary prevention of possible later psychiatric problems.

   Look carefully at the developmental point of the victim in terms of issues the child is currently dealing with and try to understand what the attack means to the victim at that particular age.

LEARNING ACTIVITIES - continued

B. Premarital Sex

The stage of "falling in love" becomes an attempt to arrive at a definition of own identity by projecting a diffuse image of ego on to another and then seeing it reflected and clarified.

Confusion results when adolescents cannot incorporate the many sources of input about themselves into a consistent self-image. If this identity confusion persists, they will also have a diminished ability to develop intimate relationships with others. If the youth cannot establish normal one-to-one boy girl relationships, they are likely to become promiscuous.

Many adolescents have a period of transition where there is role confusion before they develop a self-image and sense of identity. This is a period when adolescents are very likely to perform sexually for nonsexual reasons. Nonsexual motivation reflects underlying social and psychologic conflects and needs. Reasons why adolescents act the way they do are:

1. To obtain peer approval
2. To express rebellion against parental or adult values
3. Express hositility against parents
4. Escape from own life situations

Sexual activity in the adolescent may be their attempt to bring attention to themselves and their needs. Sexual behavior that is not motivated by pleasure, curiosity, or the establishment of a meaningful relationship represents the misuse of sex. This can unltimately lead to difficulty in developing intimate relationships later. Other reasons adolescents turn to sex at an early age may be:

1. Girl in an unaffectionate home wanting preganancy in order to have a child to love
2. Adolescent does not like the mother and to compensate for low level of self-esteem the adolescent may become promiscuous
3. Parents that have moderate level of hostility toward each other, their daughter may feel unloved and alone. May become sexually active at an early age.

C. Unwed Adolescent Parents

It has been estimated from studies done through the Department of Health, Education, and Welfare, that one out of every ten girls in the United States will become a parent while still of school age. (In Arizona, one birth out of five was to school-age mothers in 1973.) The number is increasing annually as the population of school-age girls increases. Pregnancy out of wedlock occurs at every social, economic, and intellectual level, although most often the teenage who is seen by a public health worker has been socially and economically deprived.

LEARNING ACTIVITIES - continued

These studies inidcate that few of the girls actually wanted to become pregnant. Most had an ongoing, meaningful relationship with one boy and had just begun to have sexual relations. By the time the child is born, approximately 60 percent of the girls are married and about 85 percent keep their child. Some of the underlying causes of pregnancy in the typical unwed adolescent may be:

1. Conflict between her parents and herself, resulting in her feeling rejected and insecure at home
2. Lack of satisfactory adjustment in other areas of living
3. Frustrations and pent-up emotions which seek an outlet
4. Loss of inhibitions due to the use of alcohol or drugs
5. Lack of knowledge about sex

Prevention of pregnancy out of wedlock includes:

1. Development in the fame of a positive self-identity
2. The ability to postpone immediate desires in order to achieve long-range goals
3. Sufficient confidence in herself so that she does not have to conform to the wishes of her group

Needs of the unmarried pregnant adolescent

1. Professional counseling
    a. Help in dealing with her feelings of guilt
    b. Help in deciding whether to have the baby or not
    c. Planning for prenatal care
    d. Planning for financial counseling
    e. Help in deciding whether to keep her infant or to relinquish the infant for adoption
    f. Father also needs help in determining his role and guidance for the future

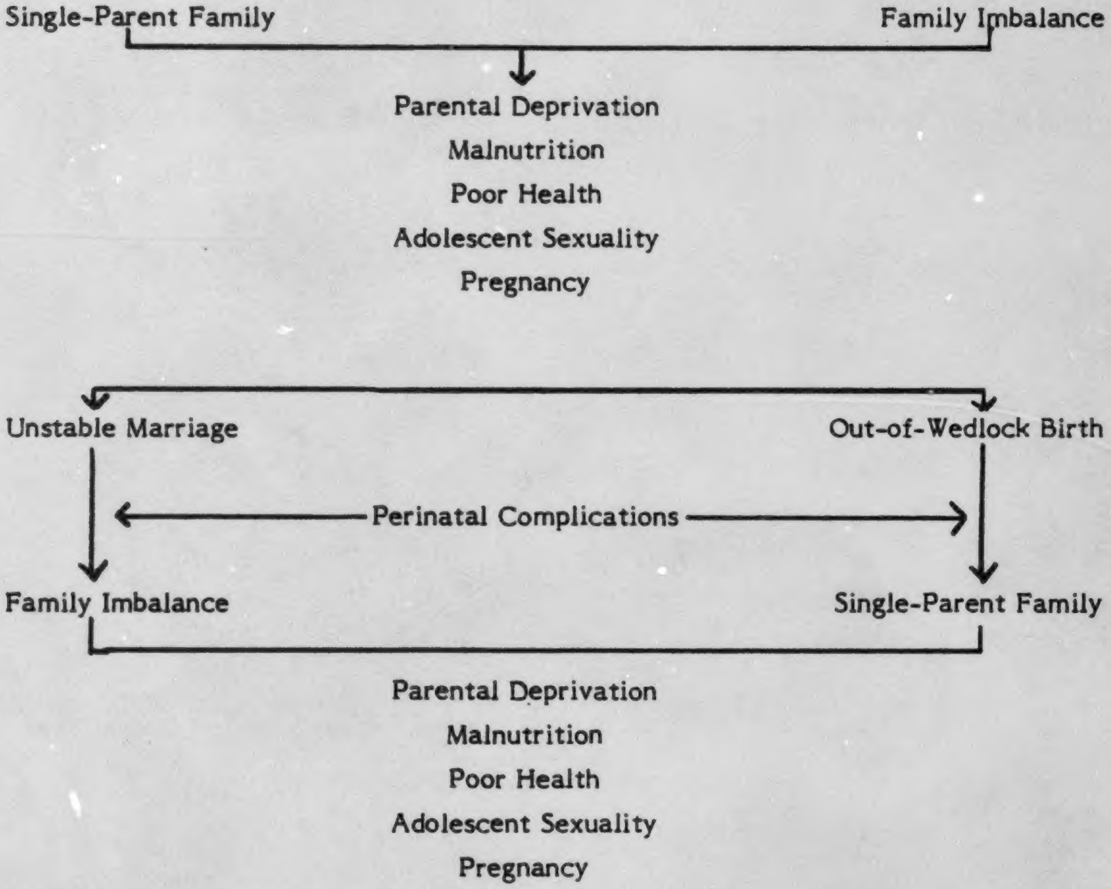
Research indicates these young mothers are high risks educationally, medically, and socially. Pregnancy is a major known cause of female school dropouts. Incomplete education is associated with underemployment or unemployment. Young mothers are more likely to have more complications in pregnancy and delivery. Young mothers also deliver more premature babies with low birth weights -- which is often associated with handicapping conditions.

LEARNING ACTIVITIES - continued

Sudden adult responsibilities of the young father may force him to leave school prematurely, thus damaging his life potential as well as that of the individuals who are, or will be, dependent on him. Forced early marriages end with a divorce rate 3 to 4 times the divorce rate of any other age group. Young mothers are also known to have high rates of attempted suicide.

If sufficient assistance and guidance are given to unmarried adolescent parents, much of the tragedy of broken lives, both those of the parents and the child, can be averted. Thus the adolescent does not become a victim of undesirable circumstances. See the diagram on the following page regarding the adolescent trap.

Study the diagram on the adolescent trap. By following the diagram, you can see how it relates to the teenage parent.


Single-Parent Family
Family Imbalance
Parental Deprivation
Malnutrition
Poor Health
Adolescent Sexuality
Pregnancy
Unstable Marriage
Out-of-Wedlock Birth
Perinatal Complications
Family Imbalance
Single-Parent Family
Parental Deprivation
Malnutrition
Poor Health
Adolescent Sexuality
Pregnancy

LEARNING ACTIVITIES - continued

D. Contraceptives and Adolescents

It is possible to identify high risk adolescents who need birth control services without referring to their sexual behavior. There are psychologic factors such as their level of self-esteem, their feelings about each of their parents and their parent's marriage that are important indicators of their probable level of sexual activity.

The adolescent needs to be counseled to help strengthen self-concept, especially in areas relating to sexual identity and to help the high-risk adolescent to use responsible adult contraceptive methods. This must be done in an atmosphere of privacy and in the strictest confidence.

Many adolescents do not choose a contraceptive method because that would indicate that they had planned on intercourse. The majority of adolescent intercourse is impulsive and occurs without foresight and planning for contraception.

The methods of contraception that may be used are given in order from most effective to the least effective.

1. Birth control pills
2. IUD (interuterine device)
3. Diaphragm
4. Condom
5. Spermicide
6. Coitus (interrupts withdrawal)
7. Rhythm method
8. Douching

Most effective is abstention.

When counseling an adolescent regarding contraception it is important that the nurse present the facts objectively and encourage the client to make her own decision regarding the problem.

E. Abortion

If the teenager becomes pregnant and does not wish to carry the baby to term, counseling for abortion should be available. It appears that the legal right of adolescents to abortion is without question in our country. At present, some states do not require parental consent. Studies have demonstrated that adolescents do not have any significant changes in their emotional structure after abortion. In fact, they report feelings of relief after termination has occurred.

LEARNING ACTIVITIES - continued

When counseling the adolescent, be careful not to give her the feeling of intrusion. Teenage love is a highly sensitive area of the teenage.

Adolescents should seek medical advice early in pregnancy. Abortions done during the first trimester are not reported as being as traumatic as those done after one has felt fetal life. Abortions done by the 12th week of pregnancy can be done on an outpatient basis, there is little discomfort and bleeding is minimized as the vascularity of the fetus is less in the first trimester.

Abortions performed during the second trimester require hospitalization with observation. An abortifacient must be instilled, there is a waiting period, and then the uterus empties by a more natural process. Thsi process can be very traumatic both physically and emotionally to the teenager.

If abortion is not acceptable and the decision to carry the pregnancy to term is made, the pregnant teenage needs to be counseled to seek prenatal care and assisted with plans for adoption paental responsibilities. Reports have indicated babies of teen parents are high risk for being battered, mainly because the teens have not learned to parent.

F. Venereal Diseases

Syphilis (Lues)

Symptoms

Primary stage

Single painless sore or chancre, looks like pimple or blister usually about 21 days after exposure. Can be hidden in the vagina and go unnoticed.

Secondary stage

1. Appears 2 to 6 months after contact and may go unnoticed even though a rash may be present or sore may appear in the mouth or throat
2. A fever may be present, along with sore throat and enlarged lymph glands

Diagnosis serologic test

Complications

If it goes unnoticed and untreated can cause congenital syphilis in the infant of infected mothers; may damage vital organs, and in later years cause paralysis, crippling, cardiovascular disease, blindness or paresis.

G. Gonarrhea (clap)

Symptoms

1. Discharge of purulent material and burning pain of the penis when an infected male urinates within 2 to 6 days after exposure

LEARNING ACTIVITIES - continued

2. Females may have no symptoms

Diagnosis

Can be made in the male by a stained smear or culture of the purulent urethral exudate and in the female by a culture using a Thayer-Martin VCM Medium.

Complications

Can cause salpingitis pelvic inflammatory disease, peritonitis and sterility in the female. The organisms may cause gonococcal ophthalmic neonatorum in the newborn of infected mothers. In males, the infection may occur in the prosterior urethra and prostate gland and ultimately scarring of the seminal ducts and sterility may occur.

Both diseases are contracted through sexual promiscuity. Important problems in the adolescent are treatment of the disease, case finding, and prevention by the health team.

Although other sources of help are available, many adolescents utilize the "hot line", free clinics, or youth clinics available to them. Remember as a member of the health team, be frank, honest and nonjudgmental in your approach to these persons and give information to the particular problem presented.

H. Genital Herpes (Cause is DNA virus - Herpes simplex)

Symptoms

1. Many small painful blisters appear 3-6 days after sexual contact
2. Elevation of temperature
3. Dysuria
4. Regional adenopathy
5. Painful ulceration

Recurrence is common. If the adolescent has it during pregnancy, the infant can easily acquire it during the process of birth. Herpes virus may also be a possible factor in the etiology of cervical dysplasia and carcinoma of the cervix.

Treatment

No specific therapy for herpes. Symptomatic relief can be obtained with compresses of aluminum acetate (Borow's solution).

LEARNING ACTIVITIES - continued

Review Activity over Problems of Sexuality and the Adolescent

Directions: Answer the following questions.

1. What is the difference between sexual molestation and rape? ______________

   ____

   ____

2. Rape is a crime of sex. TRUE or FALSE. Explain.

   ____

   ____

3. What are the two phases involved with the trauma of rape?

   a. ____

   ____

   b. ____

   ____

4. List four (4) possible reasons the adolescent is involved with premarital sex.

   a. ____

   b. ____

   c. ____

   d. ____

5. List three (3) possible approachs to use to help prevent pregnancy out of wedlock.

   a. ____

   b. ____

   c. ____

LEARNING ACTIVITIES - continued

6. What are the possible needs of the unmarried pregnant adolescent?

7. Why do many adolescents not choose a contraception method?

8. What is the most effective method of contraception?

9. Do adolescents have the legal right to have an abortion?

10. Abortions done during what period of the pregnancy is least traumatic? Why?

11. Why do adolescent parents have a high incidence of battering their children?

12. Why is syphilis difficult to diagnose in the female?

13. What complications may occur if syphilis goes untreated?

14. A mother with gonarrhea may cause what in her newborn?

LEARNING ACTIVITIES - continued

15. What sources for treatment are available for the adolescent with venereal disease?

16. Genital Herpes

    a. Symptoms:

    b. Treatment:

    c. Causative Organism:

    d. Complications:

ACTIVITY #7. Adolescents with Emotional Disorders

Directions: Read your text, Textbook of Pediatric Nursing, pages 889-903, and read the following.

A. Juvenile Delinquency (Deviant behavior)

Etiology

A delinquent is one who does not behave in accordance with standards set by society or community. Basically delinquent behavior is antisocial, aggressive behavior usually due to anxiety and frustrations.

Incidence

Juvenile delinquency in the United States has increased for more than 20 consecutive years. Included under the category of delinquent behavior are shoplifing, running away from home, trauancy from school, damage to and theft of property, etc.

Cause

One important factor to be considered is the sense of worthlessness, and low self-esteem. Others can be related to a combination of causable factors.

1. Force of circumstances
2. Poor home and community environment

LEARNING ACTIVITIES - continued

3. Mental retardation

4. Neurosis

5. Character disorders

6. Emotional disturbances (psychosis)

Treatment

Emphais should not be on the delinquent act alone, but be placed on the total individual in the home and community and on the reasons why the act was commited.

Nursing care

The nurse must develop an open and sensitive attitude towards others in order to deliver care that is both socially and medically oriented.

B. Drug Dependence or Abuse

Definitions

Drug abuse - Use of a drug to excess or in a way not sanctioned medically, socially, or culturally.

Drug dependence - Dependence may be psychological, physical or both. Psychological dependence denotes a compulsive need to use an agent for its satisfying or pleasurable effects. Physical dependence is the result of drug-induced changes in body tissue functioning that make the presence of the drug necessary for a normal state of activity.

Drug tolerance - Development of ability of body tissue to endure and adapt to continued or increased use of a drug.

Withdrawal symptoms - A characteristic pattern of signs and symptoms when a drug is discontinued or withdrawn. The drug-adapted body cells lose their ability to function normally, and must go through the process of adjusting to the absence of the drug.

Commonly abused substances

1. Alcohol

   Whisky, gin, beer, wine
   Slang - Booze - Hooch

   Method of taking - swallowing liquid

   Effects - To relax. To escape from tension, problems and inhalation. To get "high" (euphoria) seeking adulthood or rebelling.

LEARNING ACTIVITIES - continued

Physiologic effects - CNS depressant - Relaxation drowsiness. Impaired judgment coordination and emotional control.

Long term effects - Physical and psychological dependence - irreversible damage to brain and liver - severe withdrawal illness (D.T.'s).

2. Caffeine

Coffee, tea, coca-cola, NO-DOZ APC

Slang - Java

Method of taking - swallowing liquid

Effects - For a "pick-up" or stimulation. Taking a break. Social custom and low cost.

Physiologic effects - CNS stimulant. Increases alertness. Reduction of fatigue.

Long term effects - Sometimes insomnia or restlessness. Habituation. Usually no physical dependence.

3. Nicotine

Cigarettes, cigars

Slang - Fag

Method of taking - Smoking (inhalation)

Effects - For a pick-up or stimulation. "Taking a break". Social custom.

Physiologic effects - CNS stimulation. Relaxation from the process of smoking.

Long term effects - Lung (and other) cancer, heart and blood vessel disease, cough. No physical dependence but high potential for psychological dependence.

4. Sedatives

Barbituates - Nembutal - seconal - Phenobarbital Doriden, Chloral Hydrate, Miltown, Equanil (Meprobamate).

Slang - Yellow jackets, red devils, Phennies, goofers, "downers", barbs.

Method of taking - Swallowing pills or capsules.

LEARNING ACTIVITIES - continued

Effects - To relax or sleep. To get "high." Widely prescribed by physicians both for specific and nonspecific complaints.

Physiologic effects - CNS depressant sleep induction. Relaxation. Drowsiness. Impaired judgment, reaction time, coordination and emotional control. Relief of anxiety and tension. Muscle relaxation.

Long term effects - Irritability, weight loss, addicition with severe withdrawal illness.

5. Stimulants

   a. Amphetamines - Benzedrine - Methedrine, Dexadrine

      Slang - Bennies, Crystal, Dexies or X-mas trees (spansules), "pep pills," "uppers"

      Method of taking - Swallowing pills, capsules or injecting in vein.

      Effects - For stimulation and relief of fatigue. To get "high." General climate encourages taking pills for everything.

      Physiologic effects - CNS stimulant. Increases alterness, reduction of fatigue, loss of appetite, insomnia.

      Long term effects - Restlessness. Irritability, weight loss. Toxic Psychosis. Habituation.

   b. Cocaine

      Slang - coke, snow

      Method of taking - Sniffing or injecting.

      Effects - For stimulation and relief of fatigue. To get "high."

      Physiologic effects - CNS stimulant.

6. Tranquilizers

Librium, Phenothizinie (Thorazine, Compazine, Stelazine), Reserpine.

Method of taking - Swallowing pills or capsules.

Effects - Medical treatment of anxiety or tension state, alcoholism, psychosis and other disorders.

Physiologic effects - Selective CNS depressants. Relaxation, relief of anxiety and tension.

Long term effects - Sometimes drowsiness, dryness of mouth, blurring of vision, skin rash, trauma. Occassionally jaundice, agranulocytosis. Minimal potential for psychological dependence.

LEARNING ACTIVITIES - continued

7. Marihuana

   Slang - Pot, grass, tea, weed, stuff, reefers, joints

   Method of taking - Smoking (inhalation) swallowing.

   Effects - To get "high." As an escape. To relax. To socialize. To conform to various subcultures which sanctions its use. For rebellion. Attraction of behavior labeled as deviant.

   Physiologic effects - Relaxation, euphoria, increased appetite, some alternation of time perception, possible impairment of judgment and coordination.

   Long term effects - Usually none.

8. Narcotics

   a. Heroin - Most abused narcotic in America

      Slang - Horse - H - smack

      Method of taking - Injecting in vein or muscle

   b. Opium

      Slang - OP

      Method of taking - Smoking (inhalation)

   c. Morphine - Codeine, Percodan, Demerol, Cough syrups

      Method of taking - Swallowing

      Effects - To get "high" as an escape to avoid withdrawal symptoms. For rebellion. As a substitute for aggressive and sexual drives which cause anxiety.

      Physiologic effects - CNS depressant. Sedation, euphoria, relief of pain, impaired, intellectual functioning and coordination.

      Long term effects - Constipation, loss of appetite and weight, temporary impotency sterility. Habituation, addiction with unpleasant and painful withdrawal illness.

      Withdrawal - Use of synthetic opiate, methadone, it is addicting but the heroin craving is removed. Used to return the addict to legitimate employment.

LEARNING ACTIVITIES - continued

9. Hallucinogens

LSD and Peyote (mescaline)

Slang - LSD, Acid, Peyote.

Method of taking - LSD - swallowing liquid, capsule, pill or sugar cube. Peyote -chewing plant.

Effects - Seeking for meaning and consciousness expansion. Rebellion. Attraction of behavior recently labeled as deviant.

Physiologic effects - Production of visual imagry, increased sensory awareness, anxiety, nausea, impaired coordination.

Long term effects - Does produce chromosomal aberrations, flashbacks of bad trips, panic reaction.

10. Volatile solvents

Glue, gasoline, amylnitrite.

Method of taking - Inhalation

Effects - Curiosity to get "high." Thrill seeking. Ready availability.

Physiologic effects - When used for mind-alteration, generally produces a "high" with impaired coordination and judgment.

Long term effects - Variable, some of the substances can seriously damage the liver or kidney.

Reasons for drug abuse

1. Poor self-concept
2. Social pressure from peers
3. Escape from problems
4. Experimentation
5. Curiosity

Nursing responsibility

1. Be alert to the possibility that addiction may exist in the adolescent.
2. Know sources of help in community to which such persons can be referred, should the need arise.
3. Educate about the misuse of drugs

LEARNING ACTIVITIES - continued

4. Common denominator in the treatment and care of persons addicted to drugs is that of reducing anxiety through quiet, calm reassurance and support given in a controlled environment by a warm, understanding human being.

C. Suicide

Incidence

Suicidal attempts and suicide are not rare in children and adolescents. The rate of these deaths has almost doubled in recent years. This problem is less common in grade-school children than in adolescents. Suicide is more common in males than females. Females however, make more suicidal attempts than males. Suicide occurs most often in the spring of the year. Many suicides are disguised as accidents such as poisoning, falls, electrocutions or motorcycle and automobile crashes.

Cause

1. General permissiveness in modern society which, combined with a sexual revolution, results in the destruction rather than the strengthening of the egos of young people.
2. More specific adolescents may be "social isolaters."
3. Come from disorganized homes and are under intolerable stress
4. Has a sense of failure
5. Feels unloved, unwanted, and bad
6. Feelings produce guilt which leads to a suicidal effort

Symptoms

1. In general, impulsive
2. Immature person
3. Overreacts to even minor stresses
4. Restless
5. Bored
6. Hyperactive
7. History of truancy from school
8. Sexually promiscuious
9. Depressed

LEARNING ACTIVITIES - continued

Suicide attempts are usually, but not always triggered by a series of crisis involving discipline or punishment which the person considers unfair. Suicidal attempts almost always occur when the person feels extremely lonely.

Nursing care

1. Be alert to changes in behavior
2. Respect and accept the suicidal adolescent as a person
3. Help the person to express feelings of aggression and hostility constructively and outwardly rather than destructively.
4. Maintain therapeutic relation with patient.
5. Show support and protection of person through sincere interest, warmth and understanding until the person can manage these self-destructive urges.

Review Activity over Adolescents with Emotional Problems

Directions: Answer the following questions.

1. Define juvenile deliquency. ______________________________

   ____

2. List six (6) possible factors that contribute to delinquency. Place a star by the one most important.

   a. ______________________________

   b. ______________________________

   c. ______________________________

   d. ______________________________

   e. ______________________________

   f. ______________________________

3. Where should the emphasis of treatment be with the juvenile delinquent?

   ____

   ____

4. What are the two (2) types of drug dependence?

   a. ______________________________

   b. ______________________________

LEARNING ACTIVITIES - concluded

5. Of the commonly abused substances list four (4) groups that are CNS depressants.

   a. ______________________________

   b. ______________________________

   c. ______________________________

   d. ______________________________

6. Of the commonly abused substances list three (3) groups that are CNS stimulants.

   a. ______________________________

   b. ______________________________

   c. ______________________________

7. What type of drug is LSD? ______________________________

8. What long term effects can LSD have? ______________________________

9. List five (5) reasons adolescents may abuse drugs.

   a. ______________________________

   b. ______________________________

   c. ______________________________

   d. ______________________________

   e. ______________________________

10. What may trigger a suicide attempt? ______________________________

    ____

    ____

11. What types of feelings about one's self does a suicidal adolescent have?

    ____

    ____

12. What type of accidents may disguise a suicide attempt? ______________________________

    ____

unit 14

TERMINOLOGY

The following is a list of terms, together with the definition of each. These are the terms you should recognize and understand for the successful completion of Unit 14 of the Health Occupations Program. Study and learn their meanings as related to the nursing assistant.

ADJUVANT FEEDINGS:	The inclusion of foods in an infant's diet that supplements formula or breast feeding. Nursing responsibilities include the proper selection of food, proper size portions, and the addition to the diet of one new food at a time. Adjuvant feedings should be offered before the bottle or breast, when the appetite is at its peak.
AMEBIASIS:	Infection of the colon caused by a protozoa parasite. Nursing responsibilities include proper disposal of stool and linen to prevent the spread of this disease, the maintenance of nutrition with a bland diet, observation for untoward responses to the drug therapy prescribed, and general hygenic care. Stool specimens for laboratory examination must be freshly obtained and should not be left standing at room temperature. Parent teaching concerning the need for follow-up care and the examination of all members of the family are essential. Community agencies should be utilized.
ANOMALY:	An organ or structure which is abnormal with reference to form, structure, or position; a malformation.
ANOXIA:	A state of oxygen deprivation within the body. Nursing responsibilities include the maintenance of a patient airway, the administration of a safe concentration of oxygen, and the maintenance of body warmth.
ANTERIOR FONTANEL:	A characteristic "soft-spot" or space between the bones of the infant's skull. Bounded by the frontal and the parietal bones, this fontanel is diamond-shaped and closes by the time the child is 18 months of age.

TERMINOLOGY - continued

ASCARIASIS:	A round-worm infestation. Nursing responsibilities include observation for characteristic symptoms such as a cough, vomiting, abdominal pain, lethargy, and anorexia. The linen should be treated as in isolation cases. The need for stool specimens for laboratory tests should be anticipated. Pinning the diaper snugly at the thighs will prevent the child from contaminating fingers with fecal matter. Teaching the patient and parents concerning hygenic habits and referral of the family for follow-up care are essential.
ASPIRATION:	To draw in or out as by suction. Foreign bodies may be aspirated into the nose, throat, or lungs on inspiration. It can also be the withdrawing of a fluid from a cavity by means of suction with an instrument called an aspirator.
ATELECTASIS:	Incomplete expansion of the alveoli of the lungs. Nursing responsibilities include the observation of vital signs, skin color, and symptoms of respiratory distress. It is essential to maintain a patent airway and body warmth and to prevent upper respiratory infection. The position of the child should be changed frequently, and the head of the bed be kept slightly elevated. The child should be fed slowly and burped frequently to prevent abdominal distention.
ATRESIA:	A congential anomaly in which a normal anatomical opening is absent. For example, atresia of the esophagus prevents food from being transported to the stomach.
BRADFORD FRAME:	An apparatus that consists of narrow strips of canvas attached to a metal frame which is supported by blocks to elevate it for corrective positioning of the spine. Nursing responsibilities include providing support for the arms with pillows and using a restraint jacket to maintain the position and for safety. A bedpan should be placed under the frame to facilitate defecation and urination without moving patient. Pillows under the head should be avoided. Elevation of the head may be accomplished by placing the mattress of the crib in Fowler's position or by elevating the base of the Bradford Frame.
BRYANT TRACTION:	A type of traction apparatus commonly used for toddlers suffering from a fractured femur. Vertical suspension is used.
CALLUS:	An unorganized meshwork of woven bone which is formed following the fracture of a bone and is normally ultimately replaced by hard adult bone.

TERMINOLOGY - continued

CAPUT SUCCEDANEUM:	Edema of the scalp usually associated with the birth process. Discoloration due to subcutaneous hemorrhage may be present. This condition differs clinically from cephalohematoma in that the swelling is not limited to the surface of one cranial bone. Nursing responsibilities include assuring the parents that this condition will disappear without treatment.
CARDIAC CATHETERIZATION:	A diagnostic procedure which involves passing a catheter through a cut-down site, directly into the heart and the large vessels in order to obtain a blood specimen and measure pressure within the hearing chamber. Nursing responsibilities include checking for preoperative consent, providing psychological support, and observing the responses of the child during the procedure. Postoperative nursing responsibilities include frequent checking of vital signs and the observation of the cut-down site for evidence of bleeding. It is essential to instruct the parents in the care of the cut-down site and the need for follow-up.
CELIAC SYNDROME:	An impairment, inability to absorb fats, resulting in malnutrition, vitamin deficiency, and symptoms such as foul bily stools, and a distended abdomen. Celiac disease involves an intolerance to glutten; muscoviscidosis involves pancreaic lesions, and the development of abnormally viscous mucous secretions. Both diseases, classified under the general terms "celiac syndrome", are thought to be a genetic origin. Nursing responsibilities include accurate recording of stools in relation to food intake, adherence to dietary restrictions, prevention of upper respiratory infection, and referral for follow-up care. The use of parenteral and aerosol therapy and postural drainage may be anticipated. When collecting a stool specimen, avoid contamination by feces.
CEPHALOHEMATOMA:	Subperiosteal hemorrhage usually associated with the birth process. The swelling is limited to the surface of one cranial bone. Nursing responsibilities include observation for symptoms of skull fracture and resulting neurological signs. Parents need reassurance that the condition will clear up without treatment.
CEPHALOCAUDAL:	Orderly development of muscular control which proceeds from the head to the foot and from the center of the body to the periphery.

TERMINOLOGY - continued

CEREBRAL PALSY:	A disorder of the motor centers and pathway of the brain. It may be congenital or acquired before the central nervous system matures. Nursing responsibilities include fostering development capacities providing continuity of rehabilitation programs, nutritional maintenance, and prevention of contractures and injury due to lack of neuromuscular coordination. Parents should be provided with psychological support and plans for long-time goals should be discussed. The intelligence potential of the child is not necessarily diminished by this condition. Available community resources should be used and the nurse must function as a member of the interdisciplinary team.
CHORDEE:	A fibrous strand of tissue extending from the scrotum to the penis, preventing urination with the penis in the normal elevated position. Chordee is commonly associated with a congenital anomaly known as hypospadias. Surgical repair is usually initiated before the child is of school age.
CLEFT LIP AND CLEFT PALATE:	A congenital anomaly due to a partial or a complete non-union of the maxillary bone, palatal bone, and the upper lip. The cleft lip is usually repaired surgically before the age of one month, and the cleft palate is usually repaired before the age of two years. Nursing responsibilities include preventing of aspiration during feeding, maintenance of oral hygiene, prevention of upper respiratory infection, and provision of psychological support to the parents. Nursing measures should be instituted to prevent straining or contamination of the suture line postoperatively. Referral for follow-up care and speech therapy may be indicated.
CLUBFOOT (TALIPES EQUINOVARUS):	A congential orthopedic anomaly in which the shape or contour of the foot is distorted. Nursing responsibilities include teaching the parents the purpose and techniques of the prescribed therapy and providing psychological support. The patient should be referred for follow-up care.
COARCTATION OF THE AORTA:	A narrowing condition of the aortic arch or of the descending aorta.
CONGENITAL ANOMALY:	A malformation present at birth.

TERMINOLOGY - continued

CONTRAINDICATION:	Any symptom or circumstance indicating the inappropriateness of a form of treatment which is otherwise advisable.
CRAINOSYNOSTOSIS:	The premature closure of sutures of the skull usually shortly after birth.
CREDE'S METHOD:	A method of emptying the bladder. Pressure should be applied firmly but gently, beginning in the umbilical area and slowly progressing under the symphysis pubis and toward the anus.
CRETINISM:	A congenital defect in the secretion of the thyroid hormones characterized by physical and mental retardation.
CROUP:	An inflammation of the larynx. Laryngotracheobronchitis is the most serious form of croup.
CRYPTORCHIDISM:	A condition in which the testicles fail to descent into the scrotum. Also known as "undescended testicles", hormonal or surgical therapy is usually instituted to preserve the fertility of the child and to prevent any neoplastic changes. Nursing responsibilities include the psychological preparation of the child for surgery, since the operation may be performed at a time when the child's awareness of body is keen. Contamination by urine and/or feces at the operative site must be prevented.
CYSTIC FIBROSIS:	A inherited disease causing an increased amount of mucus in the lungs and excretion of large amounts of sodium potassium and chloride.
DENIS-BROWNE SPLINT:	An orthopedic appliance, used for children with clubfeet consisting of two separate foot plates attached by a cross bar. Foot plates are fitted to the child's shoe to maintain a corrective position. Nursing responsibilities include teaching the parents the purpose and proper use of the appliance.
DEXTRO:	A prefix indicating to the right.
DOWN'S SYNDROME:	Also known as mongolism; a chromosomal anomaly that causes a form of mental retardation. Nursing responsibilities include the prevention of upper respiratory infection, general supportive care, and referral for vocational guidance.

TERMINOLOGY - continued

DUCTUS ARERIOSUS (PATENT):	A congential anomaly in which the opening between the aorta and the pulmonary artery fails to close after birth. Nursing responsibilities include the prevention of fatigue, observation for dyspnea, and cardiac failure, and frequent observation of vital signs. Surgical correction may be anticipated. The nurse must provide psychological support to the parents.
ECZEMA:	An inflammatory skin condition most often associated with allergic responses to food proteins. Nursing responsibilities include the use of elbow restraints to prevent scratching and subsequent secondary infection of lesions; adherence to the dietary restrictions prescribed; and selection of diversional therapy, using non-allergenic toys. The use of heavy plastic sheets will prevent absorption of skin ointment by the bed linen. The use of soap should be avoided and articles containing wool should not be used. It is important to instruct the parents concerning diet, skin care, and the prevention of infection.
ENCHEPHALOCELE:	Herniation of brain through congenital or traumatic opening of the skull.
ELECTROLYTES:	Chemical compounds that break down into ions when placed in water. An ion is an atom having a positive or a negative electrical charge.
ENURESIS:	The inability to control urination in a child over three years of age due to an organic or psychological problem. Bladder control is usually established by the third year of life unless a disease condition exists. Nursing responsibilities include fostering a positive attitude in parent and child and guiding them in the identification of the underlying cause.
ENTEROBIASIS:	A pinworm infestation; also known as oxyuriasis. Nursing responsibilities include teaching hygenic habits, pinning the diaper snugly at the thighs to prevent contamination of the infant's fingers, and isolation of all linen. The nurse must be alert for symptoms of abdominal distress, local infection, and nocturnal perianal itching.

TERMINOLOGY - continued

EPISTAXIS:	Nosebleeding: This condition may be caused by local or systemic factors. Nursing responsibilities include the placement of the child in a semi-Fowler's position in a quiet environment. The clothing around the neck should be loosened and blowing the nose should be avoided. The nurse should also watch for and teach the prevention of trauma which may be caused by placing foreign bodies or matter in the nares of "picking" the nose. Each episode of epistaxis must be reported to the physician.
ERB-DUCHENNE PARALYSIS:	A condition which is the result of injury to the brachial plexus incurred during the birth process and involving damage to the fifth and sixth servical nerves. Signs and symptoms include a unilateral Moro relex and a characteristic position of the affected arm.
ERUCTATION:	Synonymous with "belching". Eructation differs from "bubbling" in that it takes place at a time other than when the infant is held upright and patted on the back.
ERYTHROBLASTOSIS:	A physiological hemolytic anemia that results from a blood incompatibility. This condition is usually associated with the offspring of Rh positive fathers and Rh negative mothers. Nusring responsibilities include the maintenance of nutrition and body warmth, prevention of upper respiratory infection, and observation and reporting of jaundice or edema. Deviations in vital signs or signs of central nervous system involvement should be promptly reported. Exchange transfusion therapy may be anticipated.
ETIOLOGY:	The study of the causes of disease.
EXANTHEM SUBITUM:	See roseola infantum.
EXSTROPHY OF THE BLADDER:	A congential defect in which the lower urinary tract is everted and exposed on the abdominal wall. Nursing responsibilities include the prevention and relief of skin excoriation, and follow-up care.

TERMINOLOGY - continued

FIBROPLASIA RETROLENTAL:	A spasm of the retinal vessels resulting from high concentrations of oxygen administered to a newborn causing permanent blindness. An important nursing responsibility lies in the prevention of this condition by the judicious use of oxygen in the newborn nursery. Oxygen concentration exceeding 40% may cause this condition in the newborn.
FONTANELS:	Openings at the point of union of skull bones often referred to as "soft spots" on the infant's head. The posterior fontanel is often difficult to palpate in the newborn because of the molding that takes place during the birth process. The anterior fontanel usually closes by the age of 18 months.
FORAMEN OVALE (PATENT):	An opening in the septum between the right and the left atria of the heart that remains patent after birth. Cardiac catheterization may be performed for diagnostic purposes. Surgery may or may not be indicated. Nursing responsibilities include the observation and reporting of cyanosis, preventing of fatigue, and referral for follow-up care after discharge.
FREJKA SPLINT:	An apparatus used to maintain flexion and abduction of the hips and the knee in the treatment of a congenital dislocation of the hip. Nursing responsibilities include detailed skin care, maintenance of the prescribed position, and selection of appropriate articles of diversional therapy.
GALACTOSEMIA:	An inborn error in the metabolism of galactose.
GASTROENTERITIS:	An inflammation of the gastrointestinal tract characterized by vomiting and diarrhea. Nursing responsibilities include the maintenance of medical aseptic technique, maintenance of body warmth, observation and reporting of signs of dehydration and acidosis, recording of intake and output, skin care and adherence to dietary restrictions. Parenteral therapy should be anticipated.
HEMANGIOMA:	A benign tumor of the skin involving delated blood vessels. Nursing responsibilities include prevention of trauma to the lesion and providing psychological support to the parents.

TERMINOLOGY - continued

JAUNDICE:	A symptom characterized by a yellowish tinge of the skin and sclera. If associated with lethargy, dehydration, and increase serum bilirubin levels, jaundice may have serious implications. Nursing responsibilities include observation for jaundice in daylight. Physiological jaundice may be a normal occurrence in the newborn (icterus neonatorum), but since nurses can not make a medical diagnosis, they must consider all jaundice pathological and report it immediately to the doctor.
KERNICTERUS:	Staining of the basal ganglia of the brain, which occurs as a result of increase serum bilirubin. It is associated with hemolytic disease of the newborn and the infant. Nursing responsibilities include observing and reporting jaundice and neurological symptoms. Exchange transfusion may be anticipated for newborns with high blood bilirubin level.
KLUMPKE'S PARALYSIS:	An injury to the seventh and the eighth cervical nerves incurred during the birth process. Signs and symptoms include a unilateral Moro reflex and a characteristic position of the affected forearm. Nursing responsibilities include maintaining the arm in the prescribed position providing continuity of physical therapy.
LARYNGOTRACHEO-BRONCHITIS:	A serious form of croup involving an inflammation of the larynx, trachea, and bronchi. Nursing responsibilities include a knowledge of the principles of caring for a child in a humidified tent, the observation of vital signs, conservation of energy, maintenance of a patent airway, and frequent change of position.
LEAD POISONING:	Also known as plumbism; a toxic response of the body to lead which may have been ingested or inhaled. A marked degree of toxicity may cause severe and permanent brain damage.
LEUKEMIA:	A blood disease characterized by a massive increase in white blood cells. Nursing responsibilities include observation for bleeding, prevention of infection, and general supportive care. The nurse must be familiar with the effects of the drug prescribed. Referral for follow-up care is necessary.

TERMINOLOGY - continued

LIPIDOSIS:	A group of symptoms resulting from a congenital defect that causes increased fat content of tissues or serum. This condition produces an enlargement of the viscera and is often accompanied by impaired neurological functions.
LUES (CONGENITAL):	Syphilis acquired by the fetus through the placenta of an infected mother. Clinically this condition in the newborn is similar to the secondary stage of syphilis in the adult and is characterized by various anatomical defects. Nursing responsibilities include isolation of the newborn from other newborn infants, suctioning of the nose prior to feedings, and provision for follow-up care.
MACKEL'S DIVERTICULUM:	An outpouching on the terminal ileum; a remnant of the embryonic yolk stalk between the ileum and the umbilicus.
MEGACOLON:	See Hirschsprung's Disease.
MENINGOCELE:	A congenital anomaly characterized by a protrusion of the meninges through an opening of the spinal column. For nursing responsibilities, see Meningomyelocele.
MENINGOMYELOCELE:	A congenital anomaly characterized by a protrusion of the meninges and the spinal cord through an opening in the spinal column. Nursing responsibilities include prevention of trauma and infection at the site of the defect, detailed skin care, maintenance of nutrition, and observation of developmental motor abilities. Postoperative rehabilitation, referral for follow-up care, and psychological support to the parent are essential.
MILIARIA RUBRA:	Also known as prickly heat; this inflammatory skin condition is caused by an obstruction of the sweat ducts. Nursing responsibilities include maintenance of an optimum enviornmental temperature and instruction to the parents concerning proper clothing for the infant, especially during warm weather.
MILLIEQUIVALENT:	Weights of a substance contained in one milliliter of a normal solution.
MILWAUKEE BRACE:	A special device used in scoliosis to maintain correct posture.
MISCIBLE:	Capable of being mixed.
MONGOLISM:	See Down's Syndrome.

TERMINOLOGY - continued

MUCOVISCIDOSIS:	See Celiac Syndrome.
MYOCLONIC SEIZURES (INFANTILE):	A convulsive seizure characterized by a sudden drooping of the head and the flexion of the arms that may be repeated several hundred times a day. Nursing responsibilities include maintenance of environmental safety, accurate observation and reporting of seizures, and referral for follow-up care.
MYRINGOTOMY:	Surgical incision of the tympanic membrane.
NEONATE:	A newborn infant.
NEVI:	A congenital lesion of the skin causing functional or cosmetic problems. Hemangiomas and strawberry marks are types of nevi. Nursing responsibilities include providing psychological support to the parents, referral for the follow-up care indicated by the specific defects, and interpretation of the planned therapy to the parents.
OMPHALOCELE:	A herniation of the abdominal contents into the umbilical cord. Nursing responsibilities include prevention of infection and drying of the umbilical cord and tissues. The nurse may anticipate and prepare for surgical correction.
OPHTHALMIA NEONATORUM:	A highly communicable disease also known as gonorrheal conjuctivitis. Nursing responsibilities include observing and reporting eye discharges and the use of strict isolation techniques. The nurse may contribute to the prevention of this disease by using proper techniques when instilling prophylactic eye drops at birth.
PALLIATIVE:	An agent which alleviates or eases something such as pain.
PALPABLE:	Able to touch or to feel.
PAROTITIS (INFECTIOUS):	Mumps; a highly communicable viral disease affecting the salivary glands. Nursing responsibilities include maintaining isolation techniques, providing for adequate rest and maintaining adequate nutrition with a soft or liquid bland diet. Abdominal pain, fever, vomiting, or the development of cerebral symptoms should be promptly reported.

TERMINOLOGY - continued

PAROXYSMAL:	A sudden spasm or convulsion of any kind.
PATENT:	Wide open, evident or accessible.
PATHOLOGY:	Study of the nature and the cause of disease which involves changes in structure and function.
PEDICULOSIS:	Head lice. The signs of pediculosis include grayish-white specks clinging to the hair, the presence of the grayhead louse, and red spots along the hair line. Any one or all of these signs should be reported at once, the patient isolated, and treatment started at once according to the established procedure.
PERTHES' DISEASE:	Legg-Calve-Perthes Disease is an aseptic necrosis of the epiphysis of the femur. Nursing responsibilities include the prevention of weight-bearing on the affected leg and the initiation of a long-term plan for therapy.
PERTUSSIS:	A highly communicable disease of the respiratory tract, also known as whooping cough. Nursing responsibilities include observation and reporting of dyspnea and fever, support of the abdominal muscles during coughing paroxysms, maintenance of body warmth, maintenance of a patent airway, and conservation of energy. Teaching parents the importance of early immunization is an aspect of preventative nursing care.
PHENYLALANINE:	One of the twelve essential amino acids.
PHENYLKETONURIA: (PKU)	A congenital metabolic defect in which the ability to metabolize the amino acid, phenylalanine in the blood affects skin pigmentation and causes irreversible mental retardation. Nursing responsibilities include teaching the parents regarding dietary restrictions and referral for follow-up care.
PHIMOSIS:	A narrowing of the prepuce of the uncircumcised penis. Nursing responsibilities include observation for voiding and preparation for surgical correction by circumcision. Following surgery the nurse must observe for voiding and report bleeding.
POLYCHTHEMIA:	An excess of red blood cells.
PROGNOSIS:	Prediction of course and end of disease and the outlook based on the course of the disease.

TERMINOLOGY - continued

PROJECTILE:	Vomiting in which the stomach contents are forcibly ejected.
PROSTRATION:	Absolute exhaustion.
PURPURA:	See Schoenlein-Henoch Syndrome.
PYLORIC STENOSIS:	A congenital narrowing of the pylorus of the stomach caused by a hypertrophied muscle. Nursing responsibilities include observation and recording of tolerance of food ingested, recording of daily weight, and reporting symptoms of dehydration. Gentle handling, slow, and careful feeding of a thickened formula, and maintenance of Fowler's position following feeding are essential. Surgical correction may be anticipated.
PUBERTY:	A period of life at which one of either sex becomes functionally capable of reproduction.
REGURGITATION:	The act of returning food to the mouth from the stomach immediately after ingestion. It is neither forceful nor is it associated with nausea. Nursing responsibilities include evaluation of feeding techniques, frequent burping during feedings, and avoidance of large nipple holes. The infant should be placed in Fowler's position after feeding.
RETROLENTAL FIBROPLASIA:	See Fibroplasia, retrolental.
RHEUMATIC FEVER:	A collagen disease associated with group A streptococci and characterized by migratory polyarthritis, sydenham's chorea, and carditis. This disease can cause severe cardiac damage. Nursing responsibilities include maintenance of adequate nutrition, limitation of physical activity, and observation of responses to drug therapy. Teaching the parents concerning the need for follow-up care is essential.
RICKETS:	A disease of the bones, caused by lack of calcium or Vitamin D.
ROSEOLA INFANTUM:	Also known as Exanthem subitum; this viral disease is characterized by a period of high fever abrupty terminated with the eruption of a generalized maculopapular rash. Nursing responsibilities include frequent observation and reporting of pyrexia, provision of the prescribed therapy to reduce fever and prevent febrile convulsions, observations and accurate descripiton of rash, and general supportive care.

TERMINOLOGY - continued

RUBELLA:	Also known as German Measles; this viral communicable disease is common to children and is characterized by a tender enlargement of the cervical nodes, a maculopapular rash, and general flushing of the skin. Nursing responsibilities include accurate observation and reporting of the rash and general supportive care.
RUBEOLA:	Also known as measles; this highly communicable viral disease is manifested by catarrhal symptoms, a maculopapular rash, and fever. Nursing responsibilities include prevention of secondary infection, meticulous oral hygiene, protection of the eyes from strain and strong light, and provision for adequate food intake. Symptoms of ear, cardiac, or cerebral involvement should be promptly reported.
SCABIES:	An infestation caused by the female itch mite that burrows under the skin and deposits eggs. The areas most frequently involved are those between the toes, fingers, on the wrists, in the axillae, on the abdomen, and around the genitals. The mite is easily transferred from one person to another.
SCARLET FEVER:	An acute allergic reaction to a hemolytic streptococcal infection. Nursing responsibilities include maintenance of bedrest and minimal activity, provision of adequate fluids, a soft bland diet, and symptomatic care. Observations for cardiac and renal complications are essential.
SCOLIOSIS:	A curvature of the spine which frequently occurs in preadolescent girls.
SCURVY:	A disease caused by the lack of Vitamin C in the diet and characterized by joint pain, bleeding gums, loose teeth and lack of energy.
SHUNT:	A by-pass.
SPINA BIFIDA:	A congenital defect in which the bony portion of the spinal column fails to close. Nursing responsibilities see Meningocele and Meningomyelocele.
STENOSIS:	Constriction or narrowing of a passage or orifice.

TERMINOLOGY - continued

STRABISMUS:	An imbalance of the extraocular muscles causing "crossed eyes". Nursing responsibilities include teaching the parent concerning the prescribed therapy. Prevention of slight defects and psychological trauma by early treatment should be stressed. Safety is of utmost importance for a young child who must wear glasses or a patch over one eye.
STRAWBERRY MARKS:	See Nevi.
SUBLUXATION:	A partial or incomplete dislocation.
TAY-SACHS DISEASE:	A congenital lipid metabolic defect also known as infantile amaurotic family idocy. Signs and symptoms include apathy, retardation of growth and development, visual disturbances, spasticity, and cerebral seizures. The developmental retardation is usually noticed by the sixth month of life. Nursing responsibilities include general supportive care with special consideration to skin care, maintenance of nutrition, and prevention of hypostatic pneumonia. Environmental stimulation should be kept to a minimum. Observation of cerebral seizures and accurate recording of developmental abilities are essential to the evaluation of the child's progress.
TENESMUS:	Straining, especially ineffectual and painful straining at stool or in urination.
TETANY:	An increased neuromuscular irritability associated with a deficiency of Vitamin D or calcium. Nursing responsibilities include general precautions against convulsions, observation for neurological symptoms, and maintenance of a patent airway. Intramuscular calcium should not be given, as necrosis may occur at the site of injection.
TETRALOGY OF FALLOT:	A congenital heart defect, involving pulmonary stenosis, dextraposition of the aorta, right ventricular hypertropy, and frequent observation of vital signs. Chest surgery may be anticipated.
THALASSEMIA:	A hemolytic type of anemia of genetic origin. Nursing responsibilities include adherence to the principles of long-term care by the health team. Transfusion therapy may be anticipated.

TERMINOLOGY - continued

THRUSH:	A mild fungus infection of the skin and mucous membranes of the mouth characterized by pearly white, curdlike lesions. Nursing responsibilities include the maintenance of medical aseptic techniques. Detailed oral hygiene is essential.
TINEA:	A highly contagious fungus infection also known as ringworm. Tinea capitis involves the head, while tinea corporis involves the skin, and tinea pedia is "athlete's foot".
TONGUETIC:	A congenital shortfold underneath the tongue resulting in limitation of its motion. Nursing responsibilities include the observation of sucking ability. If this condition interferes with sucking or speech, surgery may be anticipated.
TOXOPLASMOSIS:	A congenital or acquired protozoan parasitic infection characterized by pathological changes in the eyes, cerebral involvement, psychomotor retardation, and convulsions. Nursing responsibilities include observation and recording of the vital signs, rash, convulsions, and developmental abilities. Environmental safety must be maintained. Psychological support to the parents is essential as it is a long-term, handicap productng disease.
TRACHEOESOPHAGEAL-FISTULA:	The esophagus instead of being an open tube from the throat to the stomach, is closed at some point. A fistula between the trachea and the esophagus is common.
TRUNCUS ARTERIOSUS:	A single arterial trunk leaves the ventricular portion of the heart and supplies the pulmonary coronary and systemic circulation.
VARCELLA:	Also known as chicken pox this communicable viral disease is characterized by a vesiculopustular rash. Nursing responsibilities include maintenance of medical aseptic technique, prevention of scratching, and prevention of secondary infections.
VARIOLA:	Also known as smallpox; this highly communicable viral infection causes general sepsis and is characterized by a vesicular rash. Nursing responsibilities include maintenance of strict medical aseptic techniques, prevention of secondary skin infection, prevention of scratching, stress on oral hygiene. Frequent observations of vital signs and reporting of cerebral symptoms are essential.

TERMINOLOGY - concluded

VOLVULUS:	A twisting of the mobile loops of the small intestine causing intestinal obstruction. Nursing responsibilities include the observation and recording of stools and reporting of abdominal distention. Preoperative preparation may be anticipated.
WILM'S TUMOR:	A malignant tumor of the kidney. Nursing responsibilities include observation and reporting of hematuria and elevated blood pressure. Frequent palpation of the tumor should be avoided. Surgery and radiation therapy may be anticipated.
XANTHOMA:	A skin eruption associated with a lipid disturbance or increased serum cholesterol level. The lesion is a circumscribed elevated papule which may appear in clusters and has yellow, orange, brown, or red tinges of color. The lesion may appear on any part of the body. Nursing responsibilities include the observation and accurate reporting of any new lesions and symptomatic care.

POST TEST

Module A

Directions: On your answer sheet circle the letter of the one best answer to each question. Put your name, date, and whether this is a retake or not at the top of the answer sheet. DO NOT MARK ON THIS TEST.

1. Which factors may add stress to a child's life?

   a. individualized child-centered learning
   b. few strong roots
   c. family mobility
   d. school screening for health problems
   e. single-parent families

2. If you, as a private citizen, believe your neighbor is mistreating a child, who should you call?

   a. police department
   b. child protective service
   c. nearest hospital
   d. contact the neighbor directly

3. The agency most likely responsible for bringing a child from another country to the United States for medical treatment would be:

   a. UNICEF
   b. Children's Bureau
   c. WHO
   d. ISS

4. The chief objective of the Children's Bureau is to:

   a. stimulate action to improve care of children
   b. assume responsibility for child care
   c. provide funds for care of children
   d. direct states in their child care programs

5. The agency committed to improvement of children in developing countries is:

   a. HMO
   b. UNICEF
   c. Children's Bureau
   d. Food and Agricultural Organization

POST TEST - continued

6. WHO is an established agency:

   a. under United States Public Health Service
   b. of independent service
   c. for care of adults
   d. of the United Nations

7. According to Erikson, the first stage of personality to emerge is a sense of:

   a. trust vs. mistrust
   b. autonomy vs. shame
   c. initiative vs. isolation
   d. accomplishment vs. stagnation

8. A major principle of growth and development is that:

   a. it occurs at a uniform rate
   b. it rarely influences behavior
   c. it is a very complex process
   d. each individual follows a unique pattern

9. Growth and development proceeds in such a way that areas in the upper part of the body develop before those in lower parts. This principle is called:

   a. cephalo-caudal development
   b. development of eye-hand coordination
   c. Erikson's principle of development
   d. visceral-peripheral development

10. An infant learns to trust by:

    a. being held while awake
    b. having needs met
    c. being fed on demand
    d. having two loving parents

11. To what form of verbal communication do children respond best?

    1. positive
    2. negative
    3. unstructured
    4. directive
    5. command

    a. 1 and 3
    b. 4 and 5
    c. 2 and 3
    d. 1 and 4
    e. 3 and 5
    f. 2 and 5

POST TEST - continued

12. From the following, select an appropriate and safe toy for a 10-year-old.

    a. paper dolls
    b. large rattle
    c. pull-toy
    d. model to put together

13. From the following, select an appropriate and safe toy for a three-year-old.

    a. Scissors and construction paper
    b. toy tractor
    c. guitar or other instrument
    d. soft, rubber blocks

14. From the following, select an appropriate and safe toy for a ten-month-old.

    a. wooden stacking blocks
    b. marbles
    c. electric train
    d. tool set

15. Of the following, which are safety factors to be kept in mind when selecting toys for a toddler.

    1. sharp edges
    2. button eyes and nose
    3. kind of paint used
    4. ability to be taken apart
    5. flammability

    a. 1, 2, 5
    b. 1, 3, 4
    c. 2, 4, 5
    d. all are correct

16. Play in the hospital allows the child an opportunity to:

    a. accept a mother-substitute
    b. reject the reality of the hospital
    c. cope with anxiety and work out feelings
    d. learn to know other children more quickly

17. The nurse provides the hospitalized child opportunities to play because:

    a. the child will cease to develop without play
    b. it is part of the everyday life of a child
    c. the child will get well faster with play
    d. the child needs the diversion to help forget home

POST TEST - continued

18. Principally, play serves what purpose in the hospital?

    a. allows child to be harmlessly cruel
    b. is an aid to normal development
    c. is a means for acting out feelings
    d. exposes a child to toys different from those at home

19. The nurse can relieve a small child's worry about hospital procedures by:

    a. explaining the procedure in detail
    b. telling the child not to worry
    c. trying to divert the child's attention
    d. giving the child a simple, honest explanation

20. Studies of children's responses to hospitalization indicate that much of the resulting trauma can be attributed to:

    a. anxiety and fear of multilation
    b. fear of hospital personnel
    c. the illness itself
    d. the strange surroundings

21. When a child is admitted to the hospital what will most likely ease the child's fears best?

    a. detailed explanations
    b. keeping own toys
    c. a loving nurse
    d. seeing other children

22. An understanding of normal growth and development will help the pediatric nurse:

    a. keep children progressing as they would at home
    b. prevent regression to earlier behavior patterns
    c. recognize tricks children use to get attention
    d. be more understanding of the sick child

23. Which are ways that hospitals have adapted to meet the needs of children?

    1. small-scale furniture
    2. unlimited parental visiting
    3. acceptance of toys from home
    4. open ward arrangements

POST TEST - continued

24. Which measures would help children cope with hospitalization?

    1. explaining procedures
    2. unrestricted parental visiting
    3. strict feeding and treatment schedules
    4. recreational programs
    5. some limits on behavior

    a. 1, 2, 4
    b. 2, 3, 4, 5
    c. 1, 2, 4, 5
    d. all are correct

25. A child may interpret hospitalization as:

    1. abandonment
    2. rejection
    3. over-protection
    4. punishment

    a. 1, 2, 4
    b. 1, 3, 4
    c. 1
    d. all are correct

26. A small child will feel less insecure in the hospital if the parents provide the child with:

    a. a favorite toy
    b. home-cooked foods
    c. daily gifts from family members
    d. frequent news from home

27. A nurse could help parents feel better about hospitalizing their child if the nurse would:

    a. allow parents to get angry and release some guilt feelings
    b. let parents stay with their child constantly
    c. allow parents to participate in some of child's care
    d. explain need for skilled care not available at home

28. A three-year-old boy is admitted to the hospital for the first time and begins wetting his pants again. This type of behavior is called:

    a. regression
    b. negative
    c. recession
    d. autonomy

POST TEST - continued

29. A mother is distressed that her two-year-old son wants a bottle now that he's in the hospital. She says that he gave up the bottle 6 months ago. You would explain that:

    a. the staff will not give a two-year-old a bottle
    b. his illness may have caused some degree of retardation
    c. it's his way of getting back at mother for putting him in the hospital
    d. it's a coping mechanism used while he is hospitalized

30. Ideal site for IM injections in the infant are:

    a. gluteus and deltoid
    b. vastus laterales and quadriceps
    c. quadriceps and ventrogluteal
    d. deltoid and lateral

31. In order for the nurse to instill ear drops in the infant properly, the nurse must:

    1. hold child's head over side of bed
    2. restrain child's head
    3. pull the pinna up and back
    4. hold child in upright position
    5. pull the pinna down and back

    a. 2
    b. 1, 3
    c. 5
    d. 2, 5
    e. 3, 4
    f. 1, 5

32. the vial reads "Atarax 100 mg. in 2 ml." The order is for Atarax 35 mg. You would give:

    a. 1.4 cc
    b. 0.7 cc
    c. 10.5 cc
    d. 0.35 cc
    e. none of the above

33. The vial reads "Morphine gr. 1/6 in 0.5 cc." The order is for Morpnine gr. 1/12. You would give:

    a. 0.25 cc
    b. 1/2 cc
    c. 1.0 cc
    d. 2.0 cc

POST TEST - continued

34. If 0.5 cc contains 25 mg. of Demerol, then 12 mg. Demerol would be in:

    a. 2.4 cc
    b. 0.24 cc
    c. 0.48 cc
    d. 1.5 cc

35. Maintenance of fluid and electrolyte balance is more critical in children than adults because:

    1. renal function is immature in children
    2. fluid balance is less stable in children
    3. proportion of body weight to water is less in children
    4. electrolytes function to maintain acid-base balance
    5. children lose more sodium and potassium when vomiting than adults

    a. all are correct
    b. 1, 2, 4
    c. 2, 3, 5
    d. 1, 2, 4, 5

36. Which are true of fluid and electrolyte balance.

    1. electrolytes are negatively and positively charged ions in body fluid
    2. human electrolytes include sodium, potassium, magnesium, calcium, and chloride
    3. normal urine is acid in character
    4. blood normally has a ph or acid-base balance of 7.35 - 7.45
    5. when body functions are in balance a state of homeostasis exists

    a. all are correct
    b. 1, 2, 4, 5
    c. 1, 2, 4
    d. 2, 3, 5

37. The rate of IV fluid flow must be observed frequently to:

    a. prevent excessive kidney filtration
    b. avoid infiltration of the IV
    c. avoid overloading the heart
    d. adequately replace fluids lost in surgery

38. Calculate the drops per minute of an IV infusion ordered for a 6-month-old at 30 cc. per hour. You will use pedi-drip equipment giving 60 gtts./cc.

    a. 60 gtts./min.
    b. 30 gtts./min.
    c. 50 gtts./min.
    d. 5 gtts./min.

POST TEST - continued

39. The drops per minute for an IV running at 75 cc per hour in a 16-year-old using adult-drip equipment (10 gtts./cc.) will be:

    a. 12 gtts./min
    b. 75 gtts./min.
    c. 125 gtts./min.
    d. 13 gtts./min.

40. The drip rate for an IV running at 82 cc./hr. in a 12-year-old using adult drip equipment (10 gtts./cc.) will be:

    a. 14 gtts./min.
    b. 49 gtts./min.
    c. 13 gtts./min.
    d. 82 gtts./min.

41. The drip rate for an IV running at 25 cc./hr. in a 1-year-old using pedi-drip equipment (60 gtts./cc.) will be:

    a. 4 gtts./min.
    b. 50 gtts./min.
    c. 25 gtts./min.
    d. 15 gtts./min.

42. You are caring for 8-month-old Robert who has gastroenteritis. He has been N.P.O. for three days and getting IV fluids. Today he will get clear liquids p.o. for the first time. His IV runs at a rate of 45 cc./hr. He gets Cleocin IV q. 4 hrs @ 0200 - 0600 -1000 - 1400 - 1800 - 2200. When the Cleocin is given, it is followed by 15 cc's of IV fluid as a flush. You care for Robert during the evening shift - from 1530 - 2200 and at 2000 Robert's IV infiltrates and is restarted at 2100. He takes a dinner of 30 cc. of apple juice and 30 cc. of jellow at 1800. At 1830 Robert vomits a total volume of 94 cc. of clear greenish liquid. At 1600 and 2100 Robert has stools which are mushy and yellow. They are hematest negative. A Specific Gravity done on a wet diaper at 2230 is 1.002. Robert also had wet diapers at 1700 and 2000.

    Using the following information, correctly fill in the attached I & O Sheet on the next page, or ask your instructor for the I & O Sheet you should use. Each item has a value of 1 point each.

POST TEST - concluded

SAMPLE
INTAKE AND OUTPUT SHEET

INTAKE **OUTPUT** From 0600 Date ______________ To 0600 Date ______________

TIME	PO				TIME	URINE	STOOL			OUTPUT TESTS
0700					0700					
0800					0800					
0900					0900					
1000					1000					
1100					1100					
1200					1200					
1300					1300					
1400					1400					
8° TOTAL					8° TOTAL					SHIFT 1 NURSE
1500					1500					
1600					1600					
1700					1700					
1800					1800					
1900					1900					
2000					2000					
2100					2100					
2200					2200					
8° TOTAL					8° TOTAL					SHIFT 2 NURSE
2300					2300					
2400					2400					
0100					0100					
0200					0200					
0300					0300					
0400					0400					
0500					0500					
0600					0600					
8° TOTAL					8° TOTAL					SHIFT 3 NURSE
24 TOTAL					24 TOTAL					
WEIGHT		PREV. TOTAL						PREV. TOTAL		

G.T. – Gastronomy
N.G. – Nasogastric
T.T. – T-Tube
H.V. – Hemovac
Ch.T. – Chest Tube
VD – Void
F – Foley
IR – Irrigation

ANSWERS TO POST TEST

Module A

1. c
2. b
3. d
4. a
5. b
6. d
7. a
8. d
9. a
10. b
11. d
12. d
13. b
14. a
15. d
16. c
17. b
18. c
19. d
20. d
21. c
22. d
23. b
24. c
25. a
26. a
27. c
28. a
29. d
30. b
31. d
32. b
33. a
34. b
35. b
36. a
37. c
38. b
39. d
40. a
41. c

POST TEST

Module B

Directions: On your answer sheet circle the letter of the one best answer to each question. Put your name, date and whether this is a retake or not at the top of the answer sheet. DO NOT MARK ON THIS TEST.

1. The psychological task, according to Erikson, for the newborn infant is the development of:

   a. trust
   b. autonomy
   c. generativity
   d. industry

2. The newborn is helped to accomplish psychological tasks by:

   a. concerned, caring parents
   b. being exposed to a variety of adults
   c. having needs met quickly
   d. being presented with challenges

3. At birth, the baby is able to:

   1. hold its head steady
   2. suck from breast or bottle
   3. grasp objects place on palm
   4. follow slowly moving objects with eyes
   5. respond to sounds with body movements

   a. all are correct
   b. 1, 2, 3
   c. 2, 4, 5
   d. 2, 3, 4, 5

4. Which best describes the visual abilities of the newborn?

   a. can see distinctly - has 20/20 vision
   b. cannot see colors
   c. vision is very hazy and indistinct
   d. cannot see at birth — vision develops in first few weeks

POST TEST - continued

5. Which action would be most supportive of parents of a child born with a cleft lip and palate?

   a. telling them not to worry since repair is possible
   b. encouraging them to express their worries and fears
   c. showing them post-op pictures of babies' post repair
   d. telling them to ask their doctor what can be done

6. A major physical problem for a baby with a cleft lip is:

   a. inability to suck
   b. breathing difficulty
   c. poor self-image
   d. rejection by parents

7. To prevent interruption of the repair of cleft lip in the immediate post-op period, the child will:

   1. be kept sedated
   2. have arms restrained
   3. be fed with a rubber-tipped syringe
   4. not be held outside the crib
   5. be n.p.o. for 2-3 days

   a. all are correct
   b. 1, 3, 4
   c. 2, 3
   d. 1, 2, 3, 5

8. An apparatus placed across the suture line of a cleft lip repair to prevent pulling on the suture line is a:

   a. retention suture
   b. cleft reinforcer
   c. lip restraint
   d. Logan Bar

9. Unilateral, mild cleft lips are often repaired at:

   a. between 1 and 2 years of age
   b. birth
   c. a few days to weeks of age
   d. 6 months of age

10. Children with cleft palates have major problems with:

   a. appearance and speech
   b. nutrition and respirations
   c. speech and nutrition
   d. respirations and speech

POST TEST - continued

11. The optimum age for repairing a cleft palate is:

    a. one week to one month
    b. anytime in the first year
    c. between two and three years
    d. after five years when growth slows

12. It is very important psychologically for the baby with cleft lip and/or palate to:

    a. be loved and accepted
    b. be treated the same as other babies
    c. have repair done early
    d. avoid other people until repair has been done

13. When in transitional nursery, the nurse is unable to pass a N.G. tube into the newborn's stomach, what abnormality should be suspected?

    a. tracheo esophageal fistula
    b. imperforate anus
    c. pyloric stenosis
    d. esophageal atresia

14. The pathology of esophageal atresia is that:

    a. the esophagus does not connect with the stomach
    b. there is obstruction in the upper part of the esophagus
    c. the esophagus is narrowed at its connection with the stomach
    d. there is congenital absence of the esophagus

15. Symptoms commonly found in a patient with esophageal atresia is/are:

    1. cyanosis
    2. regurgitation
    3. excessive salivation
    4. coughing
    5. weight loss

    a. all are correct
    b. 1, 2, 3
    c. 2, 4, 5
    d. 1, 3, 4, 5

16. During gastrostomy feeding of a newborn infant, the nurse must provide the baby with:

    a. a diversionary toy
    b. water orally
    c. a pacifier
    d. cuddling

POST TEST - continued

17. A problem associated with gastrostomy feedings is:

    a. dry skin around the gastrostomy insertion site
    b. inadequate diet due to the necessity for liquids
    c. the patient tastes the food
    d. leakage of gastric secretions onto the skin

18. A repetitive problem faced by children after repair of esophageal atresia is:

    a. vomiting after large meals
    b. infection along incision lines
    c. stricture at anastomosis sites
    d. failure of gastrostomy to close

19. Which are common causes of vomiting and/or diarrhea in babies?

    a. improper sterilization of formula
    b. contaminated water
    c. lack of refrigeration of formula
    d. contact with infectious organisms
    e. visiting relative in New Mexico

20. In order to correctly care for a baby with vomiting and diarrhea, what nursing measures are taken?

    1. observation of child
    2. strict intake and output recording
    3. checking urine specific gravity
    4. weighing child daily
    5. correctly regulating IV

    a. 1, 2, 4
    b. 2, 3, 4
    c. 2, 4, 5
    d. all are correct

21. If a newborn develops vomiting and diarrhea and dies, death is probably caused by:

    a. spread of infectious organisms
    b. dehydration and electrolyte imbalance
    c. loss of essential nutrients
    d. aspiration of emesis

22. When a newborn has not passed meconium stool within 24 hours after delivery, the nurse should suspect:

    a. a gastric and/or intestinal malabsorption problem
    b. pyloric stenosis
    c. intestinal obstruction
    d. imperforate anus

POST TEST - continued

23. If your patient, Bobby, has spinal bifida cystica, it means that:

    1. he has a congenital defect
    2. the spinal cord may protrude through the defect
    3. the defect is probably in the lumbo-sacral region
    4. he will need corrective surgery
    5. he should stay off his back

    a. all are correct
    b. 1, 2, 4, 5
    c. 1, 2, 3, 4
    d. 1, 2, 3

24. You are assigned to care for an infant, Becky, who has a myelomeningocele. You know that Becky is likely to have:

    1. a sac on her back containing spinal cord and meninges
    2. mental retardation
    3. incontinence of urine and stool
    4. paralysis of the lower trunk and extremities
    5. a possible developing hydrocephalus

    a. 1, 3, 4, 5
    b. 1, 2, 4
    c. 1, 3, 4
    d. 2, 4, 5

25. With the myelomeningocele Becky must be kept off her back because:

    a. the paralysis may be worsened
    b. the spinal cord may be damaged
    c. the meningeal sac may be damaged
    d. lying on her back will increase intracranial pressure

26. Bladder and bowel training for a child with incontinence due to nerve damage:

    a. is impossible to achieve
    b. may be successful for bladder but not bowel
    c. may be successful and should be attempted
    d. will be unsuccessful and ureters must be transplanted to sigmoid colon

27. Hydrocephalus occurs due to:

    a. intracranial edema due to infection
    b. failure of suture lines to close with expansion of the skull
    c. accumulation of cerebrospinal fluid in the brain
    d. excess loss of cerebrospinal fluid through head injury

POST TEST - continued

28. Which are signs of increased intracranial pressure?

    1. hematemesis
    2. irritability
    3. vomiting
    4. bulging fontanels
    5. lethargy

    a. all are correct
    b. 1, 2, 3, 4
    c. 2, 3, 4, 5
    d. 2, 3, 4

29. Treatment of hydrocephalus involves:

    a. draining off excess spinal fluid through a lumbar puncture
    b. removing some choroid plexus from the brain
    c. inserting a tube to drain off CSF to the peritoneal area
    d. removing some bone from the skull to allow expansion of the brain

30. Congential club foot (talipes equinovarus) may be caused by:

    1. position of legs and feet in utero
    2. too early wearing of shoes
    3. a genetic defect
    4. injury to the mother during pregnancy
    5. mother engaging in too vigorous exercise during pregnancy

    a. 1, 2
    b. 1, 3
    c. 3, 5
    d. 3, 4
    e. 1, 5
    f. 2, 4

31. Club foot is usually treated first with:

    1. a series of casts
    2. surgical correction
    3. corrective shoes
    4. passive exercises

    a. 1, 4
    b. 1
    c. 1, 2, 3
    d. 4

POST TEST - continued

32. Congenital talipes equinovarus (club foot) is sometimes treated with what type of splint?

    a. Knight splint
    b. Frejka splint
    c. Dennis-Browne splint
    d. Bradford splint

33. The problem with congential hip dislocation is that:

    a. the acetabulum is deformed and does not fit the femoral head
    b. the head of the femur rises up and out of the acetabulum
    c. there is weakness or absence of supporting ligaments
    d. the head of the femur is deformed and will not enter the acetabulum

34. Usually treatment for congenital hip dislocation of the older child is:

    a. closed reduction and maintenance of abduction, flexion and external rotation with a cast
    b. open reduction and maintenance of abduction, flexion, and external rotation with a cast
    c. closed reduction and maintenance of adduction, flexion and internal rotation with a brace
    d. casting in position of adduction and internal rotation without reduction

35. You may see conginital hip dislocation of the infant treated with:

    a. Buck's extension
    b. Frejka splint
    c. Dennis-Browne splint
    d. Bradford's extension

36. In an infant with a unilateral congenital hip dislocation you would expect to see:

    a. affected leg looks longer, has limited abduction and an increased number of folds in thigh
    b. legs same length, no limitation of motion and no unusual folds
    c. shortness of involved leg, limited abduction and increased folds in thigh
    d. affected leg looks longer, no limitation of joint motion, increase in folds of thigh

37. A major factor in caring for a patient in a cast is to:

    a. observe the patient for pain
    b. turn the patient frequently
    c. keep the patient warm until the cast dries
    d. check the casted area for circulatory impairment

POST TEST - continued

38. A major problem for a patient in a cast is pressure sores. To prevent this you would:

    a. force fluids to hydrate the patient
    b. change the patient's position frequently
    c. give vitamin supplements
    d. remove cast periodically to massage skin

39. Of paramount importance in caring for a baby in a hip-spica cast is to:

    a. provide diversion during long hours in bed
    b. keep the cast free of urine and stool
    c. make sure active child does not crack cast
    d. avoid wetting cast during bath

40. Some general indications of cardiac difficulty include:

    1. fainting
    2. squatting
    3. feeding difficulties
    4. weak cry
    5. "failure to thrive"

    a. 1, 2, 4
    b. 1, 2, 3, 4
    c. 3, 4, 5
    d. all are correct

Situation: Cynthia, age 6, is admitted to the hospital for repair of Tetralogy of Fallot. Questions 41-47 relate to this situation.

41. Which defects are present in Tetralogy of Fallot?

    1. pulmonary artery stenosis
    2. patent ductus arteriosis
    3. right ventricular hypertrophy
    4. overriding aorta or dextroposition of aorta
    5. atrial septal defect

    a. 2, 4, 5
    b. 1, 2, 3
    c. 1, 3, 4
    d. 4, 5

42. Cynthia is receiving Digoxin to:

    a. speed up her heart rate
    b. lower her blood pressure
    c. increase her urinary output
    d. improve her hearts contractibility

POST TEST - continued

43. Cynthia has an order for Digoxin 0.06 mg. The vial you have is labeled Digoxin 0.05 mg./cc. You would give:

    a. 0.8 cc
    b. 1.0 cc
    c. 1.2 cc
    d. 10 minims

44. A symptom Cynthia might have visibly displayed is:

    a. audible murmur
    b. dizziness
    c. cyanosis
    d. weakness in legs

45. Which statement by Cynthia might indicate hemorrhage post operatively?

    a. "Mommy, my tummy hurts".
    b. "Mommy, I'm cold".
    c. "Mommy, I'm so hot".
    d. "Mommy, my head hurts".

46. After surgery, water seal drainage is used to help Cynthia's lungs reexpand. If the drainage collection bottle breaks, the nurse should first:

    a. clamp the chest tube close to the chest wall
    b. remove the chest tube and apply a sterile dressing
    c. elevate the head of Cynthia's bed
    d. call the physician

47. Water seal drainage is used post operatively to:

    a. drain air and fluid from plural space
    b. decrease edema in operative site
    c. prevent blood accumulation in peritoneal cavity
    d. prevent urinary stasis in the bladder

Situation: During her first year, Mary grew slowly, was pale and had frequent colds. At 14 months of age she was admitted to the hospital for tests, the doctor being suspicious of a patent ductus arteriosus. Questions 48-54 relate to this situation.

48. In patent ductus arteriosus, there is an abnormal connection between the:

    a. right and left atria
    b. right and left ventricles
    c. pulmonary artery and aorta
    d. right ventricle and aorta

POST TEST - continued

49. A child having a bounding radial pulse and a weak femoral pulse would be suspected of having:

    a. coarctation of the aorta
    b. transposition of the great vessels
    c. congestive heart failure
    d. atrial septal defect

50. Complications of cyanotic heart defects often include:

    1. polycythemia
    2. dyspnea
    3. tachycardia
    4. congestive heart failure
    5. clubbing of fingers

    a. all are correct
    b. 2, 3, 4
    c. 2, 3, 4, 5
    d. 3, 4, 5

51. Squatting is a characteristic symptom of:

    a. diabetes mellitus
    b. coarctation of the aorta
    c. tetralogy of fallot
    d. beginning hearing loss

52. The nurse seeks to develop a good relationship with parents of children having cardiac surgery in order to:

    a. make them have confidence in the nurse
    b. support the parents so they can support the child
    c. make sure the parents are satisfied with the child's care
    d. help them understand the need for painful procedures

53. Parents of children having successful corrective cardiac surgery need help in:

    a. planning the child's future
    b. learning home care measures
    c. becoming less protective
    d. learning about complications

54. Children with congenital heart disease are often less able to handle frustration than other children because they:

    a. are usually spoiled by parents
    b. are seldom allowed to handle frustration
    c. become fatigued and cyanotic easily
    d. remain psychologically immature

ANSWERS TO POST TEST

Module B

1. a
2. c
3. d
4. c
5. b
6. a
7. c
8. d
9. c
10. c
11. c
12. a
13. d
14. a
15. a
16. c
17. d
18. c
19. d
20. d
21. b
22. d
23. a
24. a
25. c
26. c
27. c
28. c
29. c
30. b
31. a
32. c
33. b
34. a
35. b
36. c
37. d
38. b
39. b
40. d
41. c
42. d
43. c
44. c
45. b
46. a
47. a
48. c
49. a
50. a
51. c
52. b
53. c
54. b

POST TEST

Module C

Directions: On your answer sheet circle the letter of the one best answer to each question. Put your name, date, and whether this is a retake or not at the top of the answer sheet. DO NOT MARK ON THIS TEST.

Situation: Roberto, a four-month-old infant, was brought to the Child Health Center by his mother. He appeared to be well-nourished and well-developed for his age, although he had had no previous medical supervision. During the conference with the nurse, the mother asked several questions. Questions 1 - 6 relate to this situation.

1. "Roberto has been breast fed since birth, but I have been thinking about weaning him to a cup." You would tell her to do this:

   a. wean as soon as possible since his erupting teeth will hurt the mother
   b. wean as soon as he shows a desire to use a cup and give up the breast
   c. wean before summer because weaning is more difficult in hot weather
   d. wean before his front teeth erupt since sucking will cause them to protrude

2. "Roberto is refusing solid food after breast feeding. What should I do?"

   a. force him to eat to prevent anemia
   b. wean
   c. pump breasts and mix baby food with it in a bottle
   d. give some solid food before allowing him to breast feed

3. At four months of age you would expect Roberto to have which abilities?

   a. sits without support
   b. rolls from prone to supine
   c. pokes at objects with index finger
   d. feeds self with fingers

4. In the six to nine month period, Roberto will probably:

   a. stand without support
   b. begin to creep or crawl
   c. feed himself with a spoon
   d. take a few steps without help

5. During the first year, Roberto will receive which immunizations?

   a. diphtheria, pertussis, tetanus, polio, measles, and mumps
   b. smallpox, diphtheria, polio and measles
   c. chickenpox, polio, measles, mumps, diphtheria, pertussus, tetanus
   d. polio, tetanus, diphtheria, pertussis, and smallpox

POST TEST - continued

6. At 1 year of age, Roberto would be expected to:

   a. walk with help and cruises
   b. weigh 4 times his birthweight
   c. draw a recognizable face
   d. be bladder but not bowel trained

7. A mother notices that her 2-month-old is feeding very slowly and regurgitating formula when the bottle is finished. She should be instructed to:

   a. place baby flat on back to feed
   b. enlarge the hole in the nipple
   c. place baby in infant seat to feed
   d. burp baby periodically during feeding

8. If you were to recommend a baby cereal to start a baby on, you would recommend:

   a. wheat to provide bulk
   b. rice because it is least allergenic
   c. rice because it is most nutritious
   d. wheat because it is least allergenic

9. A baby on demand feedings is fed:

   a. when the baby cries
   b. every 4 hours
   c. at least 6 oz. at a time
   d. when the baby is hungry

10. Which would be the most appropriate toy for a 4-month-old infant?

    a. toy car
    b. push-pull toy
    c. tinkertoys
    d. foam rubber blocks

11. Which would be true of a healthy 1-year-old infant?

    1. grown 10-12 inches since birth
    2. doubled birth weight
    3. will have 6-8 teeth
    4. will want to be the center of the family
    5. will be completing the stage of trust vs. mistrust

    a. all are correct
    b. 3
    c. 1, 3, 4, 5
    d. 2, 3, 5

POST TEST - continued

12. Bottle propping is to be avoided because:

    a. the parent cannot check the formula temperature
    b. baby may lose the nipple and become frustrated
    c. it deprives the baby of contact with the parent
    d. the bed linen may become wet with formula

13. Sucking is important in the infant because it:

    a. aids in the eruption of teeth
    b. promotes good alignment of teeth
    c. develops muscles used in speaking
    d. satisfies infantile sexual drives

14. Which would you avoid giving an infant?

    1. bananas
    2. whole eggs
    3. toast
    4. squash
    5. orange juice
    6. wheat cereal

    a. 1, 2, 3
    b. 2, 3, 5
    c. 2, 5, 6
    d. 4, 5, 6

15. When feeding a 2-month-old solids for the first time, you would expect what problem?

    a. the tongue will automatically push food out of the mouth
    b. the baby will not like it and spit it out
    c. an allergic reaction will probably occur
    d. the baby will not like the feel of the spoon and resist it

16. The first deciduous tooth usually erupts at:

    a. 2 months
    b. 6-7 months
    c. 12 months
    d. 14-18 months

17. Erikson terms the psychological task that the infant must learn as:

    a. identity vs. identity diffusion
    b. autonomy vs. shame and doubt
    c. industry vs. guilt
    d. trust vs. mistrust

POST TEST - continued

18. A child with a cold is considered communicable for what period of time?

    a. while fever is 100° F. or higher
    b. a short time before and for 2 days after symptoms appear
    c. common cold is not communicable
    d. as long as symptoms of nasal congestion and fever are evident

19. Which symptoms would you expect in a child with croup?

    1. cyanosis
    2. harsh, barking cough
    3. large amounts of respiratory mucus
    4. sternal and substernal retractions
    5. gasping respirations
    6. hoarsness

    a. all are correct
    b. 2, 4, 5
    c. 1, 3, 6
    d. 1, 2, 4, 5, 6

20. The end result of chronic otitis media may be:

    a. hearing loss
    b. destruction of middle ear
    c. encephalitis from organism spread
    d. chronic ear pain

21. Symptoms likely to be seen in a baby with acute bronchiolitis include:

    1. moist, rattling cough
    2. inflammation of bronchi
    3. air trapping in alveoli
    4. strong suck and voracious appetite
    5. rapid, shallow respirations
    6. cyanosis

    a. all are correct
    b. 2, 3, 5, 6
    c. 1, 2, 4, 5
    d. 1, 2, 4, 6

POST TEST - continued

22. Complications of acute bronchiolitis may include:

    1. cardiac failure
    2. respiratory failure
    3. severe dehydration
    4. broncho pneumonia
    5. acid-base imbalance

    a. all are correct
    b. 1, 2, 3, 4
    c. 1, 3, 4
    d. 2, 4, 5

23. Infectious agents in pneumonia may include:

    a. streptococcus and staphlococcus
    b. E. Coli and interobacteria
    c. pseudomonas and mycobacterium
    d. Clostridium tetani and Klebsiella

24. What should you do first if a child aspirates a foreign object?

    a. call the doctor
    b. try to grasp the object with fingers
    c. turn child upside down and slap between shoulder blades
    d. run for help

25. Cystic fibrosis is caused by:

    a. a respiratory virus
    b. too much fat in the diet
    c. heredity, otherwise unknown
    d. increased sweat production

26. Cystic fibrosis is a disease affecting the:

    a. pancreas only
    b. the absorbing cells in the stomach
    c. metabolism of fats by the liver
    d. pancreas and respiratory systems

27. Children with cystic fibrosis have impaired ability to digest and metabolize:

    a. protein
    b. fats
    c. carbohydrates
    d. amino acids

POST TEST - continued

28. The diet for a child with cystic fibrosis needs to be restricted in:

    a. fats
    b. carbohydrates
    c. protein
    d. water soluable vitamins

29. Cystic fibrosis is treated with:

    a. oral digestive enzymes and symptomatic respiratory care
    b. continuous antibiotics and mist tent
    c. avoidance of hot climates and increased fluid intake
    d. protective isolation and antidiarrheal medications

30. Postural drainage is necessary for a child with respiratory cystic fibrosis because:

    a. the child has a weak cough reflex
    b. coughing makes the child vomit
    c. the child has a very small amount of respiratory mucus
    d. the child has increased amounts of tenacious respiratory mucus

31. Postural drainage is best done:

    a. just before meals
    b. a short while after meals
    c. once when the child gets up in the morning
    d. just before the child goes to bed at night

32. Colic is most likely caused by:

    a. milk allergy
    b. early introduction of solid foods
    c. temporary bowel obstruction
    d. intestinal flatus

33. Which are used to treat colic?

    1. antispasmodics
    2. herbs
    3. antibiotics
    4. clear liquid diet
    5. heat to abdomen
    6. time

    a. all are correct
    b. 1, 2, 4, 5, 6
    c. 1, 2, 5, 6
    d. 3, 4, 5, 6

POST TEST - continued

34. Colic leaves permanent physologic damage if not treated promptly.

    a. true
    b. false

35. Colic goes away in about three months without treatment

    a. true
    b. false

36. Intussusception most commonly occurs in males between the ages of:

    a. 1-3 months
    b. 3-6 months
    c. 4-10 months
    d. 6-12 months

37. The stool of a child with intussusception would be described as:

    a. tarry
    b. current-jelly
    c. clay-colored
    d. green

38. Treatment for intussusception may take what form:

    a. no treatment is necessary, it is self-limiting
    b. palliative since it is invariably fatal
    c. either medical or surgical depending on severity
    d. surgical only to remove the involved part of bowel

39. If a child with intussusception dies, it is most likely due to:

    a. infection of the colon
    b. chronic diarrhea
    c. malnutrition
    d. fluid and electrolyte imbalance

40. Mrs. Smith brought her 4-week-old son, Robert, to the pediatric clinic because he had been spitting up after breast feeding for the past 2 weeks. This had recently become projectile vomiting and Robert had lost wieght. Based on this information, you would suspect that:

    a. something in mother's milk is not agreeing with Robert
    b. there is an emotionally unstable home situation
    c. Robert probably has the flu
    d. Robert may have pyloric stenosis

POST TEST - continued

41. In order to use the term "projectile" correctly you must know that it describes:

    a. forceful abdominal contractions
    b. non-forceful expelling of stomach contents
    c. rhythmic abdominal contractions with defecation
    d. forceful explusion of stomach contents

42. The emesis of an infant with pyloric stenosis is the color of the child's food without bile because:

    a. the damaged gallbladder cannot release bile
    b. bile travels quickly on through the intestinal tract
    c. the obstruction is above the common bile duct opening
    d. bile is absorbed by the stomach before vomiting occurs

43. Pyloric stenosis is treated with:

    a. nothing - it is self-limiting
    b. surgical incision of the pyloris
    c. an N.G. tube passed to open the pyloris
    d. steroid medication to reduce swelling in the pyloris

44. The infant with celiac disease is unable to absorb which nutrients:

    a. carbohydrates only
    b. fats only
    c. protein
    d. vitamins and minerals

45. Celiac disease is due to an intolerance of what substance?

    a. the protein gluten
    b. milk lactose
    c. carotene in yellow vegetables
    d. saturated fat

46. What foods must be avoided by the child with celiac disease?

    a. cow's milk
    b. butter
    c. wheat and rye products
    d. citrus products

47. Treatment of celiac disease involves:

    a. injections of the missing nutrients
    b. oral administration of digestive enzymes
    c. increased amounts of fats and protein in the diet
    d. a diet that eliminates gluten

POST TEST - continued

48. A child with a ganglionic megacolon (Hirschsprung's disease) is unable to:

    a. eliminate solid waste
    b. void normally
    c. digest large amounts of food
    d. reabsorb water from urine

49. A ganglionic megacolon is corrected initially by:

    a. use of cathartics to stimulate peristalsis
    b. resection of abnormal area and colostomy creation
    c. increased fluid intake
    d. feeding by hyperalimentation

50. Pyelonephritis refers to an infection of:

    a. the bladder
    b. one or both testes
    c. one or both kidneys
    d. the urethra

51. Acid urine is desirable because it:

    a. inhibits the growth of organisms
    b. is not painful when passed
    c. is more dilute than alkaline urine
    d. does not damage the kidneys as much as alkaline urine

52. Uncorrected bilateral cryptorchidism results in:

    a. impotence in the male
    b. inability to pass urine
    c. atrophy of the ovaries
    d. adult male sterility

53. Hypospadias, in the male, means that:

    a. there is an abnormally small penis
    b. the urethral meatus is on the underside of the penis
    c. the testes remain in the abdomen
    d. the scrotum is congenitally small or absent

54. SIDS is caused by:

    a. botulism
    b. respiratory virus
    c. unknown factors
    d. child abuse

POST TEST - continued

55. The primary nutritional deficiency disease of children in the United States is:
    - a. iron deficiency anemia
    - b. scurvy
    - c. rickets
    - d. kwashiorkor

56. Nutritional anemia is a greater problem in premature infants than in full-term infants because:
    - a. "premies" cannot metabolize carbohydrate easily
    - b. amounts of stored vitamins and minerals are less
    - c. amounts of stored iron is less
    - d. "premies" cannot metabolize protein easily

57. Which is true of Kwashiorkor?
    - a. one of the oldest known skin diseases
    - b. almost adequate caloric intake but protein deficiency
    - c. even when treatment started, is usually fatal
    - d. the associated mental retardation is outgrown in adolescence

58. Insufficient intake of which of the following would result in frequent infections of mucous membranes?
    - a. Vitamin C
    - b. Vitamin A
    - c. Zinc
    - d. Calcium

59. A good substitute when citrus fruits are unavailable is:
    - a. cabbage
    - b. pineapple
    - c. dates
    - d. apples

60. Paul, age 13 months, has had a diet deficient in Vitamin D and has been kept indoors most of the time. He will most likely show signs of:
    - a. scurvy
    - b. kwashiorkor
    - c. celiac disease
    - d. rickets

61. The amount of food given to a child being treated for malnutrition is primarily determined by:
    - a. the amount of weight the child needs to gain
    - b. the child's electrolyte imbalance
    - c. the child's ability to utilize food
    - d. the degree of dehydration present

ANSWERS TO POST TEST

Module C

1. b
2. d
3. b
4. b
5. a
6. a
7. d
8. b
9. d
10. d
11. c
12. c
13. c
14. c
15. a
16. b
17. d
18. b
19. d
20. a
21. b
22. a
23. a
24. c
25. c
26. d
27. b
28. a
29. a
30. d
31. a
32. d
33. c
34. b
35. a
36. d
37. b
38. c
39. d
40. d
41. d
42. c
43. b
44. c
45. a
46. c
47. d
48. a
49. b
50. c
51. a
52. d
53. b
54. c
55. a
56. c
57. b
58. a
59. a
60. d
61. c

POST TEST

Module D

Directions: Read each question and each possible answer. When you have decided which answer is the best, circle the letter found in front of that answer on your answer sheet. DO NOT MARK ON THIS TEST.

1. During the toddler years, the child is seeking to achieve a sense of:

   a. independance or autonomy
   b. identity - sees himself as separate
   c. his own creativity - likes to make things
   d. initiative - wants to do everything himself

2. You would expect an 18-month-old child to be able to:

   a. turn knob to open door
   b. begin sharing
   c. drink from cup with little spilling
   d. feed self with spoon with frequent spilling

3. Toddler play is usually characterized by:

   a. playing alone, ignoring others
   b. secretive, constructive activity
   c. playing and sharing with peers
   d. playing along side, not with peers

4. Appropriate play material for an 18-month-old child would be:

   a. pull toy
   b. jig-saw puzzles
   c. small metal airplane
   d. croquet set

5. Toilet training is best accomplished:

   a. when the parent has lots of time
   b. when the child is staying dry all night
   c. when the child has sphincter control and can communicate
   d. before the age of two (2) years

6. Toddlers are frequently discovered playing with their feces. Since this is not socially accepted behavior, parents should:

   a. encourage smearing with substitute materials
   b. put diapers on more snugly
   c. allow this until about 4 years of age
   d. explain that this is a dirty habit

POST TEST - continued

7. One way of helping the hospitalized toddler feel more comfortable might be to:

   a. insist that a family member stay with the child
   b. have a parent bring food from home
   c. allow siblings and grandparents open visiting
   d. allow the child to keep a favorite toy

8. Which of the following might help a todder eat better while in the hospital:

   1. serve small portions
   2. serve finger foods
   3. offer dessert as reward for eating
   4. serve food family style with other children
   5. insist that the child eat because of the illness

   a. 1, 3, 5
   b. 1, 2, 4
   c. 1, 3, 4, 5
   d. all are correct

Situation: When Heather was 18 months old her mother, Mrs. Woods, brought her to the clinic complaining that Heather's appetite had decreased since infancy. Heather was active and seemed healthy. Questions 9-12 relate to this situation.

9. In talking with Mrs. Woods about Heather's appetite, the nurse must understand that:

   a. since Heather is growing less rapidly than in infancy, she needs to eat less
   b. an 18-month-old needs vitamin supplements to stimulate appetite
   c. too much milk in the diet fills up the stomach and Mrs. Woods should decrease milk intake
   d. Mrs. Woods must be firmer at mealtimes or Heather will become anemic

10. In order to develop a healthy personality, Heather must have her basic emotional needs met. To achieve this she should have:

    a. unlimited opportunity and independence to explore her world
    b. specific rules set by parents for her protection
    c. realistic limits with increasing independence as she is ready
    d. all needs anticipated so that she will not have to deal with frustration

11. At 30 months of age, Heather's play activities would be described as playing:

    a. alone, but will share toys
    b. along side others but refuses to share toys
    c. alone, and will not share toys
    d. with others and has learned to share readily

POST TEST - continued

12. Heather might be considered accident-prone in her toddler years because:

    a. parents tend to neglect children at this age
    b. Heather cannot understand parental warnings
    c. this is a negative age and Heather refuses to obey
    d. toddler's natural curiosity gets them into trouble

Situation: One day Heather fell from the top of the stairs fracturing the right femur. Questions 13 and 14 relate to this situation.

13. Heather was placed in Bryant's traction to treat the fracture. To maintain the traction properly the nurse makes certain that:

    a. Heather's legs are parallel to the bed with her heel extending over the end of the bed
    b. Heather's hips are resting on the bed with legs suspended perpendicular to the bed
    c. Heather's hips are slightly elevated from the bed with her legs suspended perpendicular to the bed
    d. Heather's hips were resting on the bed and her legs suspended parallel to the bed

14. Heather needs to remain immobilized while in traction. A preferred way to accomplish this would be to:

    a. apply posey and wrist restraints
    b. make sure someone is always with her
    c. move her bed so she can see activities without moving
    d. keep her slightly sedated while she is in traction

15. The objectives you need to keep in mind in treating any fracture are to:

    1. make the patient comfortable and pain-free
    2. reduce and immobilize the fracture to restore function
    3. assure proper alignment of bone ends to reduce pain
    4. help the patient bear weight on the cast as soon as possible

    a. 1, 3
    b. 2, 3
    c. 1, 2, 4
    d. 1, 2, 3

16. The optimum diet to promote healing of a fracture would be:

    a. high in calories, protein, vitamin C and calcium
    b. high in carbohydrates, fats, and protein
    c. low in fats, protein and high in calcium
    d. low in protein and high in vitamin A

POST TEST - continued

17. To maintain Buck's Traction properly, the nurse makes certain that the:

    a. head of the bed is elevated 30-45 degrees continually
    b. weights are resting on the floor
    c. heel gatch is raised slightly
    d. heel of the affected leg is raised off the mattress

18. To prevent urinary tract infections while in traction, the nurse:

    a. closely monitors the patient's temperature
    b. increases the patient's fluid intake to prevent urinary stasis
    c. administers urinary tract antibiotics as ordered
    d. turns the patient at least q2h

19. When a child ingests some poison, the easiest way to remove it is to induce vomiting. With which poisons would vomiting be contraindicated?

    a. barbiturates
    b. aspirin
    c. vitamins
    d. kerosene

20. If the decision is made to induce vomiting in a child who has swallowed poison, the best way to do this is to:

    a. give syrup of ipecac and water
    b. give elixir of terpin hydrate
    c. stick your finger down the child's throat
    d. turn the child upside down and strike between the shoulder blades

21. Which could be the most lethal dose of aspirin for a 4-year-old?

    a. 240 mg of adult aspirin
    b. 4 grains of baby aspirin
    c. 8 adult aspirin tablets
    d. 20 children's aspirin tablets

22. Since some plants are poisonous, parents are advised to keep their toddlers away from which of the following:

    a. zinnias
    b. oleanders
    c. petunias
    d. prickly pear cactus

23. A safe dosage of aspirin for an average 5-year-old child would be:

    a. one grain per year of life
    b. two adult aspirin q3-4hr
    c. three baby aspirin
    d. five grains q4h

POST TEST - continued

24. The best way to prevent poisoning in children is to:

    a. destroy all old medicines
    b. keep poisons out of sight and reach
    c. educate children about poisons
    d. never let children out of sight

25. Lead poisoning occurs most commonly from the child:

    a. ingesting gasoline and chewing on pencil-lead
    b. eating lead-based paint from toys, crib or furniture
    c. eating food cooked in unsealed pottery and eating plaster
    d. ingesting any form of pica and drawing on the skin with lead-based-ink

26. What symptoms would you expect in a child with lead poisoning?

    1. weakness with nausea, vomiting and abdominal pain
    2. renal toxicity, leading to renal failure
    3. convulsions leading to mental retardation
    4. joint pains due to lead deposits

    a. 1, 2, 4
    b. 2, 3, 4
    c. all are correct
    d. 1, 2, 3
    e. 1, 3, 4

27. Which is characteristic of the battered child?

    a. usually loves and tries to please the beating parent
    b. will usually tell authorities who is doing the beating
    c. is usually roudy and destructive
    d. commonly invites abuse and needs psychiatric help

28. Which is characteristic of the abusive parent?

    a. is from lower socio-economic group
    b. sees the child as property
    c. loves the child but cannot cope with problems
    d. is poorly educated in proper child care practice

29. Help for the abused child "now-a-days" most commonly takes which form:

    a. removing child from home
    b. putting abusive parents in jail
    c. helping child learn to live in the situation
    d. removing child until parents get help

POST TEST - continued

Situation: Two and one half (30 mo) year old Lupita was admitted to the pediatric ward after drinking kerosene. Questions 30-36 relate to this situation.

30. Upon ingestion of petroleum, one would not induce vomiting as this may cause:

    a. aspiration
    b. renal impairment
    c. pneumonia
    d. cardiac arrhythmias

31. Lupita's first-aid treatment at home should have consisted of giving her:

    a. mineral oil
    b. gastric lavage
    c. syrup of ipecac
    d. milk

32. When Lupita was being bathed one day, she said to the nurse, "you don't do it like my mommy." Her comment probably indicates that:

    a. she doesn't like the nurse
    b. ritual and routines are important to her
    c. she desires privacy and would like to bathe herself
    d. she misses her mother

33. One day the nurse found Lupita splashing the water in the toilet. The nurse should:

    a. give her a basin of clean water to splash
    b. slap her hands and put her in her crib
    c. explain that toilet water is dirty and inappropriate play material
    d. explain how a toilet is used

34. Lupita had frequent "temper tantrums" while in the hospital. The best way for the nurse to deal with this would be:

    a. put her in her crib and leave her alone
    b. explain to her that temper tantrums are unacceptable
    c. divert her attention with new toys
    d. protect her during the tantrum and attempt to prevent them by helping her meet her frustrations

35. After a "temper tantrum" which sort of treatment should Lupita have?

    a. ignore her for several hours
    b. interest her in a different activity
    c. remind her of her behavior several times to be sure she learned something
    d. make her stay in her crib until she appologizes for her behaivor

POST TEST - continued

36. After several weeks, Lupita becomes quiet and withdrawn. She even responded little to her mother. The nurse could explain that:

    a. she has matured and now accepts hospitalization
    b. she has learned self-discipline and control
    c. the nurse has substituted for her mother in Lupita's eyes
    d. the hospitalization experience has caused some degree of emotional trauma

Situation: After a thorough study, Susan was found to have an I.Q. of 65. Questions 37 and 38 relate to this situation.

37. Causes of mental retardation may include:

    1. trauma
    2. anoxia
    3. genetic disorders
    4. metabolic disorders
    5. malnutrition

    a. 1, 2, 3
    b. 2, 3, 5
    c. 1, 2, 3, 4
    d. 1, 3, 4, 5
    e. all are correct

38. One of the nurse's chief concerns in dealing with Susan's family is to help them:

    1. gain a realistic concept of Susan's abilities
    2. help Susan learn at a rate suitable to her capabilities
    3. recognize the need to relax most of their discipline of Susan
    4. find a suitable school for Susan

    a. 1, 3, 4
    b. 1, 2
    c. 2, 3, 4
    d. all are correct

39. Phenylketonuria (PKU) is a congenital disorder involving inability to metabolize:

    a. an essential amino acid
    b. certain types of carbohydrates
    c. the protein gluten
    d. most fats

40. The build-up of phenylalanine in the blood results in:

    a. retarded bone growth
    b. weakness and lethargy
    c. retarded brain development
    d. easy susceptibility to infections

POST TEST - continued

41. Treatment of PKU involves:

    a. high-dose antibiotics to erradicate the disease
    b. dietary modifications of protein
    c. avoidance of milk products in infancy
    d. the use of cortisosteroids to aid the phenylalanine metabolism

Situation: Joe, age 10, has received second degree burns over 50% of his body. Questions 42-49 relate to this situation.

42. Immediately following the accident, the burned area was placed in cold water. This was done to:

    a. increase capillary permeability and decrease pain
    b. decrease edema and prevent further injury
    c. promote quicker healing and remove the toxic exudate
    d. prevent eschar formation and relieve pain

43. Emergency room care of Joe would include:

    1. burn debridement
    2. maintenance of airway
    3. starting of IV
    4. application of antibiotic cream
    5. placement of N.G. tube

    a. 1, 3, 5
    b. 1, 2, 3, 5
    c. 2, 3, 4
    d. 2, 3, 5

44. The major initial concern in Joe's care revolves around:

    a. relieving his pain
    b. replacing lost fluids and electrolytes
    c. maintaining his nutritional status
    d. keeping him warm

45. Joe will probably have an N.G. tube inserted early in his course of treatment. This is necessary because:

    a. gastric and intestinal motility has stopped
    b. he cannot swallow and it provides a feeding route
    c. he will accumulate much gastric flatus which must be relieved
    d. it will prevent vomiting

POST TEST - continued

46. Part of Joe's care involves measuring his urine output every hour. Shortly after admission you note that his output is about 15-20 cc/hr. The most likely explanation for this would be:

    a. Joe is developing renal shutdown due to toxins from the burn
    b. Joe needs to have fluids forced to improve kidney function
    c. Joe's decrease circulation blood volume has decreased blood flow to the kidneys
    d. Joe's bladder is atonic and will develop cystitis if not emptied by catheterization

47. Joe's care will include close attention to:

    1. turning to prevent lung congestion
    2. early ambulation in the hall
    3. antibiotics, such as penicillin, to prevent tentanus
    4. a low fat, high protein diet for tissue repair
    5. positioning to prevent contractures

    a. 1, 3, 5
    b. 1, 3, 4, 5
    c. 2, 4, 5
    d. 1, 4, 5

48. The doctor orders Demerol 36 mg stat for Joe. How much will you prepare from a vial labeled Demerol 50 mg/1cc:

    a. 12 m
    b. 0.72 cc
    c. 14 m
    d. 1.3 cc

49. Two common, but life threatening, complications of burns are:

    a. eschar formation and renal failure
    b. skin sloughing and respiratory infection
    c. gastric ulcers and graft rejection
    d. burn infection and gastric ulcers

50. Cretinism is a congenital disorder resulting from:

    a. excessive secretion of the parathyroid glands
    b. insufficient secretion of the thyroid gland
    c. insufficient secretion of the parathyroid gland
    d. excessive secretion of the thyroid gland

51. The child with untreated cretinism will display:

    a. retarded physical and mental growth
    b. mental retardation
    c. bone deformities
    d. rickets due to loss of calcium

POST TEST - continued

52. Treatment of cretinism involves:

    a. giving a diet high in vitamin D to correct rickets
    b. use of antibiotics and synthetic thyroid hormone
    c. giving synthetic thyroid and increase dietary intake of vitamin D and Calcuim
    d. iron preparations to correct anemia and antibiotics

53. Toddlers seem to fall a lot and are prone to head injuries. Which are signs of increased intracranial pressure after head injury?

    1. change in vital signs
    2. sustained high temperature
    3. severe abdominal pain
    4. irritability or other personality change
    5. unequal pupil response to light or unequal pupils

    a. all are correct
    b. 1, 2, 4, 5
    c. 1, 3, 4
    d. 1, 4, 5

54. What would you advise the mother of Andy, who is a toddler, to do if he aspirated a peanut?

    a. lay him supine with head lowered and thump sharply on chest
    b. do a modified Heimlich by pushing her fist in under his diaphragm
    c. get him to the nearest hospital for removal of the nut
    d. begin mouth-to-mouth breathing and have someone else call an ambulance

Situation: Three-year-old Arlene is admitted to the hospital with a diagnosis of nephrosis. In addition to some lab work, she was ordered on Prednisone 5 mg. QID. Questions 55-58 relate to this situation.

55. The cause of Arlene's nephrosis is probably:

    a. unknown
    b. a previous kidney infection
    c. a reaction to drugs
    d. strep throat

56. Arlene will probably exhibit which symptoms?

    a. edema, proteinuria, hematuria
    bv. hyperlipemia, hypoproteinemia, albuminuria
    c. dyspnea, edema, weakness, weight loss
    d. anuria, hypoproteinemia, hematuria, weight loss

POST TEST - continued

57. Arlene is receiving Prednisone to:

    a. reduce weight
    b. alleviate kidney inflammation
    c. induce diuresis
    d. improve respiratory function

58. Which would be important in Arlene's nursing care:

    1. taking frequent blood pressure measurements
    2. preventing cross-infection
    3. requiring strict bedrest until well
    4. giving frequent small meals
    5. teaching parents to continue medication after Arlene is discharged

    a. all are correct
    b. 1, 2, 4, 5
    c. 1, 2, 4
    d. 2, 3, 5

59. Acute glomerulonephritis usually occurs following:

    a. removal of infected tonsils
    b. rheumatic heart disease
    c. a beta hemolytic strep infection
    d. immunization against measles

60. Symptoms of glomerulonephritis include:

    a. generalized edema and malaise
    b. sustained high temperature, hypertension, and acities
    c. increased pulse rate and generalized edema
    d. hypertension, headache, malaise, and oliguria or anuria

61. Attention to skin care in a patient with nephrosis is important because:

    a. the skin can aid in excreting toxins and relieve the load on the kidneys
    b. circulation is decreased in edematous skin making it prone to pressure sores
    c. the patient perspires more than usual and this is irritating to skin
    d. the patient will be on long term bedrest causing circulatory problems

62. A patient with nephrosis may require paracentesis. During this procedure the patient should be observed for:

    a. hemorrhage
    b. respiratory distress
    c. shock
    d. renal failure

POST TEST - continued

Situation: Mrs. Olson has been bringing three-year-old James to the clinic since birth. James' motor development has been slow and he has been diagnosed as having Cerebral Palsy. Mrs. Olson hopes to enroll James in a special nursery school soon.

63. The term "Cerebral Palsy" describes:

    1. a rare disease for which we as yet have no cure
    2. a particular form of mental and physical retardation
    3. difficulty in controlling voluntary muscles to some parts of the brain
    4. varing degrees of mild to severe muscular spasticity and hypertonus

    a. 1, 2, 4
    b. 1, 2
    c. 2, 3, 4
    d. 3, 4

64. The nurse caring for James needs to know that:

    a. cerebral palsy is usually manifested by decreased mental capacity
    b. training and therapy help James take advantage of residual ability
    c. cure for James depends, to large degree, on early diagnosis
    d. since cerebral palsy is congenital, James has little hope of improvement

65. Disturbances not related to James' cerebral palsy may be increased by:

    a. his parent's reaction to him
    b. recurrent seizures
    c. his retarded mental development
    d. lack of early learning experiences

66. James has the best chance of achieving his optimum level of functioning if he:

    a. is an only child
    b. lives in a large city
    c. has concerned parents
    d. is placed in a residential facility

67. Conductive hearing loss in children is most commonly caused by:

    a. chronic otitis media
    b. head trauma
    c. aspirin overdose
    d. genetic disorders

POST TEST - concluded

68. Persons with perceptive hearing impairment generally have a greater loss of hearing acuity in the:

    a. high-pitched tones
    b. low-pitched tones
    c. middle-pitched tones
    d. range of human voice

69. What may be the first sign a teacher would notice about a child who has a hearing impairment?

    a. difficulty understanding in class
    b. poor communication with peers
    c. inattention in class
    d. physical aggression

70. In terms of helping a handicapped toddler adjust to a handicap, which is most important:

    a. the child's relationship with parents
    b. the child's mental capacity
    c. the child's relationship with siblings
    d. a thorough understanding of the problem

71. The nurse can best assist the hospitalized blind child by:

    1. talking to child and explaining all procedures
    2. helping the child to be independent and do own care
    3. expressing happiness and allowing the child to handle equipment if possible
    4. providing safe play equipment and encouraging socialization

    a. 1, 2, 3
    b. 1, 3, 4
    c. 1, 2, 4
    d. all are correct

72. A common cause of sight impairment in children is:

    a. eye injuries
    b. congenital cataracs
    c. myopia
    d. glaucoma

73. Handicapped children usually learn best in:

    a. a regular classroom situation
    b. combination regular and special classes
    c. special education classes housed in a public school
    d. residential school for the handicapped

ANSWERS TO POST TEST

Module D

1. a
2. c
3. d
4. a
5. c
6. a
7. d
8. b
9. a
10. c
11. b
12. d
13. c
14. c
15. b
16. a
17. d
18. b
19. d
20. a
21. c
22. b
23. d
24. b
25. b

26 c
27. a
28. c
29. d
30. a
31. d
32. b
33. a
34. d
35. b
36. d
37. e
38. b
39. a
40. c
41. b
42. b
43. d
44. b
45. a
46. c
47. d
48. b
49. d
50. b

51. a
52. c
53. d
54. b
55. a
56. a
57. c
58. b
59. c
60. d
61. b
62. c
63. d
64. b
65. a
66. c
67. a
68. a
69. c
70. a
71. d
72. c
73. b

POST TEST

Module E

Directions: Read each question and its letter answers. When you have decided which answer is correct, circle that letter on your answer sheet. DO NOT WRITE ON THIS TEST.

1. The central or psychosocial crisis of the preschool child, according to Erikson is the sense of:

   a. industry -vs- inferiority
   b. intimacy -vs- isolation
   c. initiative -vs- guilt
   d. identify -vs- identity diffusion

2. The best way to help a preschooler develop good food habits is to:

   a. let the child choose some foods to eat
   b. insist the child eat all food served
   c. make sure the child always eats with others
   d. take the child to the grocery store

3. In disciplining a preschooler, punishment is most effective when:

   a. the child feels loved by the "punisher"
   b. it is a logical consequence of wrong doing
   c. administered immediately while parent is angry
   d. a privilege is denied for some time

4. Unacceptable behavior in the preschooler can be acted out through the use of:

   1. a doll
   2. threats to run away
   3. fantasy friend
   4. lying and exaggerating

   a. 1, 2
   b. 2, 3
   c. 1, 3
   d. 3, 4

POST TEST - continued

5. Children often make up a fantasy friend or relative. This is usually done to:

   1. prevent loneliness in an only child
   2. blame wrong doing on fantasy friend
   3. take the place of a deceased sibling
   4. act out inappropriate behavior

   a. 1, 4
   b. 2, 4
   c. 1, 2, 4
   d. 1, 2, 3

6. A four-year-old's idea of death would be discribed as:

   a. a temporary, unfrightening thing
   b. a severe and everlasting punishment
   c. going to a beautiful place that is inevitable
   d. a painful, frightening experience

7. In terms of physical development, one would expect a 5-year-old to be able to:

   a. write rather than print
   b. print some letters of alphabet
   c. dress self including back buttons
   d. climb and jump poorly

8. The 4-year-old is intellectually advanced enough to:

   a. write own name
   b. recognize and name one or more colors
   c. count to 20 or more
   d. knows not to lie

9. Which would be considered normal for a 4 or 5 year old:

   a. threatening or actually running away from home
   b. masturbating while alone and unoccupied
   c. stuttering when trying to say something important
   d. all are correct

10. Nutritional requirements of the preschooler are:

   a. about the same as toddlers since growth is slowed
   b. increased slightly due to increased activity
   c. decreased due to picky eating habits
   d. increased because they are more susceptible to disease

POST TEST - continued

11. Which question would best help you assist a newly admitted 4-year-old sleep well and feel more secure in the hospital.

    a. "Does the child sleep with siblings or alone?"
    b. "Does the child wake up during the night?"
    c. "Does the child prefer a dark room or light on?"
    d. "Does the child have a toy that he/she takes to bed?"

12. What accounts for the preschooler's lack of interest in eating?

    1. anorexia
    2. food jags
    3. relatively slow growth
    4. interest in environment

    a. 1, 2, 3
    b. 2, 3
    c. 2, 3, 4
    d. 3, 4

13. The preschooler has many fears as a child. Which characterizes the preschooler's anxiety?

    1. fear of being deserted by parents
    2. fear of loss of parental love
    3. fear of physical injury
    4. fear of being punished for misdeeds or bad thoughts

    a. all are correct
    b. 1, 3, 4
    c. 2, 3, 4
    d. 1, 2, 4

14. A possible reason the preschooler continues to suck a thumb is:

    a. parents failed to train child
    b. too little sucking pleasure during infancy
    c. the child has too few toys to play with
    d. the child is unable to overcome habit

15. The child that has uncontrolled bowel movements beyond the time when control is expected and has no physical causes is said to have:

    a. anuria
    b. diaphoresis
    c. enuresis
    d. encopresis

POST TEST - continued

16. What type of play begins during the preschool period?

    a. cooperative
    b. parallel
    c. solitary
    d. ambivalent

17. The child that repeatedly hurts others should be:

    a. punished and rejected for such behavior
    b. punished by having the same injury inflicted
    c. make child feel shamed and rejected
    d. provide physical outlets

Situation: Sally, age 5, enters the hospital for a tonsillectomy. Questions 18-22 relate to this situation.

18. Which is a reasonable indication for Sally's tonsillectomy:

    a. chronically infected tonsils
    b. inflammed tonsils
    c. having 2-3 colds per year
    d. acute otitis media

19. On the morning of surgery, Sally says, "I'm scared. I don't want my tonsils out." Your best response would be:

    a. "You've got nothing to be afraid of."
    b. "Be a big girl now and it will be over soon."
    c. "Why don't you tell me what is scaring you."
    d. "I'll have a popsicle waiting for you later."

20. Following Sally's tonsillectomy, she needs to be watched carefully for signs of:

    a. bleeding from surgical site
    b. abdominal distention
    c. convulsions from anesthesia
    d. respiratory obstruction

21. Which might be a sign of the above condition:

    a. crying for parent
    b. complaining of sore throat
    c. swallowing frequently
    d. vomiting post-op

POST TEST - continued

22. Sally refuses food and fluids after surgery. The nurse might encourage her by:

    a. telling her that her throat will be permanently damaged
    b. telling her she will get a penny everytime she swallows
    c. giving her Aspergum followed by ice cream
    d. placing her favorite drink by the bedside

23. Isolation is necessary for the patient with:

    1. bacterial meningitis
    2. purpura
    3. thalassemia
    4. nephrosis
    5. hepatitis

    a. all are correct
    b. 1, 3, 5
    c. 1, 2, 3, 5
    d. 2, 4
    e. 1, 5

24. Passive immunization is administered when a wound has been exposed to contamination to avoid:

    a. pertussis
    b. typhoid
    c. infection
    d. tetanus

25. For which are immunizations available:

    1. polio
    2. pertussis
    3. rubella
    4. infectious parotitis

    a. 1, 2, 3
    b. 2, 3, 4
    c. 2, 4
    d. all are correct

26. Infectious hepatitis is transmitted by:

    1. fecal oral route
    2. inhaling contaminated droplets after an infected person coughs
    3. drinking from the same container as an infected person
    4. using an unsterile needle for venipuncture

    a. 1, 4
    b. 1, 3, 4
    c. 1, 2, 4
    d. 1, 3
    e. 1, 2, 3

POST TEST - continued

27. Encephalitis is a possible complication of:

    a. hepatitis and smallpox
    b. rubeola and chickenpox
    c. typhoid fever and salmonellosis
    d. mumps and small pox

28. Beta-hemolytic streptococcal infections are dangerous because they may:

    a. permanently invade the tonsils
    b. result in encephalitis
    c. cause sterility, particularly in males
    d. lead to rheumatic heart desease

29. You are caring for a marcella child with varicella. One of your major goals is to prevent her from:

    a. developing nephrosis as a complication
    b. scratching the lesions causing spread
    c. becoming over tired and more susceptible
    d. damaging her eyes due to watching to much T.V.

30. During the first trimester of pregnancy which type of measles can be harmful to the fetus:

    a. Rubeola
    b. Roseola
    c. Rubella
    d. Variola

31. Which diseases have available immunizations?

    1. varicella, rubella, rubeola
    2. polio, measles, tetanus
    3. diphtheria, mumps, pertussis
    4. encephalitis, meningitis, hepatitis, polio

    a. 2, 3
    b. 2
    c. 1, 2, 3
    d. 3, 4
    e. 2, 3, 4

32. Sue, 18 months, has just returned from receiving her 17 month DPT. While outside playing, she fell and made a small cut on her knee on a rusty piece of metal. What would be the best approach to this situation.

    a. wrap the wound and take Sue to the doctor
    b. cleanse the wound and call the doctor
    c. cleanse the wound thoroughly and apply a clean dressing. Take Sue to the emergency room.
    d. cleanse the wound thoroughly and apply a clean dressing

POST TEST - continued

33. The rationale for your action in question 32 can best be explained by which statement.

    a. Since Sue cut her knee on a rusty piece of metal she needs to see the doctor.
    b. Cleansing the wound will eliminate any bacteria and then call the doctor to be sure there is not any other precaution to take.
    c. Cleansing the wound thoroughly will eliminate any bacteria and placing a clean dressing on the area will keep further bacteria from getting into the wound. Taking no further action knowing that the child's wound was contaminated, but that her DPT is current.
    d. Cleansing the wound thoroughly will eliminate any bacteria and applying a clean dressing on the area will keep further bacteria from getting into the wound. Notification of the physician knowing that the wound was contaminated.

34. If the hemoglobin level falls below how many grams per 100 cc, the individual is said to be anemic?

    a. 9gm/100cc
    b. 11gm/100cc
    c. 10gm/100cc
    d. 12gm/100cc

35. Too rapid destruction of red blood cells is known as:

    a. thalassemia
    b. anemia
    c. hypoplasia
    d. hemolysis

36. Since iron deficiency anemia is the most common childhood nutritional deficiency, the nurse should direct parents to which iron-rich foods?

    a. green leaf vegetables and eggs
    b. strawberries and peaches
    c. pork and green peas
    d. poultry and enriched bread

37. Death from untreated anemia would be attributed to:

    a. circulatory collapse
    b. infections of the spleen
    c. cardiac failure
    d. secondary respiratory infection

38. Sickle cell anemia most commonly occurs in:

    a. blacks
    b. caucasians
    c. orientals
    d. American Indians

POST TEST - continued

39. The potential for developing or transmitting sickle cell disease can be determined by:
    a. testing urine for sickled cells
    b. measuring quantity of sickled cells in plasma
    c. testing for sickling trait in blood
    d. testing for sickle trait in throat culture

40. The most frequent first symptom of sickle cell anemia is:
    a. bleeding into joints
    b. severe abdominal pain
    c. sudden gastric and/or rectal bleeding
    d. upper respiratory infection with fever

41. The treatment of sickle cell anemia includes:
    a. vaccination with gamma globulin
    b. adding iron supplement to diet
    c. occassional transfusions and protecting against infection
    d. bedrest and antibiotic therapy

42. Sickle cell crisis occurs when:
    1. too much blood is lost and the child goes into shock
    2. the blood becomes too thick and circulation is impaired
    3. sickled cells seep into tissue causing irritation
    4. sickled cells clump causing infarction of an area

    a. 1, 2
    b. 2, 3, 4
    c. 1, 2, 4
    d. 2, 4

43. Factors precipitating sickle cell crisis may include:
    1. mild upper respiratory infection
    2. emotional stress
    3. change in temperature
    4. change in elevation
    5. decreased physical activity

    a. all are correct
    b. 2, 4, 5
    c. 1, 2, 3, 4
    d. 1, 3, 5
    e. 2, 3, 4, 5

POST TEST - continued

44. The pathology of leukemia involves:

    a. overproduction of leukocytes
    b. production of immature leukocytes
    c. insufficient production of white blood cells
    d. failure of white blood cells to fight infection

45. Characteristics (symptoms) of leukemia include:

    a. anemia and easy bruising
    b. lung congestion but non-productive cough
    c. ascities and subnormal temperature
    d. hematemesis and glycosuria

46. The leukemic child is subject to:

    a. gastric ulcers
    b. frequent infections
    c. joint deformities
    d. slow mental growth

47. In planning the leukemic child's care, the nurse should understand that the child would be susceptible to infections because:

    a. anoxic tissues are vulnerable to bacterial invasion
    b. enlarged lymph nodes release contained pathogens
    c. immature lymphocytes are unable to fight bacteria
    d. the child is unable to take antibiotics due to allergic reaction

48. In the care of the child with leukemia, an important and necessary responsibility is:

    1. force-feed to insure adequate diet intake
    2. give medication even if the patient must be awakened
    3. protect from exposure to infection
    4. gentle and frequent mouth care

    a. 1, 2, 4
    b. 2, 3, 4
    c. 1, 3, 4
    d. 1, 2, 3

49. The nursing care of the patient with leukemia is primarily palliative. It is aimed at:

    a. treating the symptoms to keep the patient comfortable
    b. providing an adequate nutritional status
    c. keeping the patient alive as long as possible
    d. providing enough recreational activities

POST TEST - continued

50. The prescribed treatment for leukemia is to administer chemotherapeutic drugs that:

    1. are antagonistic to folic acid
    2. kill leukemia cells
    3. cause marrow suppression
    4. destroy both normal and abnormal cells

    a. 1, 2
    b. 2, 4
    c. 2
    d. all are correct

51. Hemophilia is an inherited disease due to:

    a. inability of red blood cells to transport oxygen
    b. production of immature red blood cells
    c. absence of a blood factor necessary for clotting
    d. tendency of the blood to become thick and sluggish

52. Common sites of spontaneous hemorrhage in hemophilia children are:

    a. liver and spleen
    b. kidneys and intestine
    c. nose and knees
    d. stomach and rectum

53. Which are preferable means of controlling bleeding into a joint:

    a. apply a tourniquet and call the doctor
    b. immobilize and apply cold
    c. apply heat and immobilize
    d. notify doctor and give factor concentrate

54. Which analgesics should be avoided with the hemophilia child:

    1. acetylsalicylic acid
    2. phenylbutazone
    3. acetaminophen
    4. meperidine

    a. 1, 2
    b. 2, 3
    c. 3, 4
    d. 2, 4
    e. 1, 4

55. In Idiopathic thrombocytopenic purpura there is a:

    a. decrease in the production of thrombin
    b. depression in the production of red blood cells
    c. excessive production of red blood cells
    d. reduction of platelets
    e. prolongation of the coagulation time

POST TEST - concluded

56. To aid in the control of idiopathic thrombocytopenic purpura, which body organ may be removed:

    a. kidney
    b. liver
    c. thyroid
    d. pancreas
    e. spleen

57. What is the role of the nurse in caring for the terminally ill child:

    a. provide consistent physical care
    b. support to the parents and remembering the dying child is still living
    c. provide consistent psychologic care
    d. staying with the child constantly and limiting the number of visitors

58. During terminal illness, one may progress through five stages. The usual order one goes through these stages is:

    1. bargaining
    2. depression
    3. acceptance
    4. anger
    5. shock and denial

    a. 5, 2, 4, 1, 3
    b. 2, 4, 5, 1, 3
    c. 4, 5, 2, 1, 3
    d. 4, 5, 1, 2, 3
    e. 5, 4, 1, 2, 3

59. The greatest gift the nurse can give to a dying child, and the parents, is to be with them when words have little meaning.

    a. true
    b. false

60. The nurse who has worked very closely with a child that has died can express emotion.

    a. true
    b. false

61. Children accept the truth about their illness better than evasions.

    a. true
    b. false

ANSWERS TO POST TEST

Module E

1. c
2. a
3. b
4. c
5. d
6. a
7. b
8. b
9. d
10. b
11. d
12. c
13. a
14. b
15. d
16. a
17. d
18. a
19. c
20. a
21. c
22 d
23. e
24. d
25. d
26. d
27. d
28. d
29. b
30. c
31. a
32. d
33. c
34. b
35. d
36. a
37. c
38. a
39. c
40. b
41. c
42. d
43. c
44. b
45. a
46. b
47. c
48. b
49. a
50. d
51. c
52. c
53. b
54. a
55. d
56. e
57. b
58. e
59. a
60. a
61. a

POST TEST

Module F

Directions: Select the one best response to the following questions and circle the letter of the appropriate response on your answer sheet. DO NOT WRITE ON THIS TEST.

1. According to Erikson, the school age child is in the stage of:

   a. intimacy -vs- isolation
   b. industry -vs- inferiority
   c. initiative -vs- guilt
   d. integrity -vs- deceit

2. Six-year-olds seem to have which characteristics in common:

   a. negative, demanding and show-off
   b. company manners, seek to please, and self-discipline
   c. takes part in family decisions, accepts blame, and is responsible
   d. runs away from home, is selfish, does not understand time

3. A major change that occurs psychologically in the 9-12 year period is that the child:

   1. tries to understand adult standards and values
   2. wavers between dependence and independence
   3. begins tattling on others who disobey
   4. develops the capacity to love others and not just self

   a. 2, 3
   b. 1, 3
   c. 2, 4
   d. 1, 2

4. Many parents are not aware that the school age child's breakfast appetite is upset when:

   a. excitement, anxiety, and hurry are associated with going to school
   b. the child feels strange
   c. the child must get out on the playground with the other children
   d. the day holds many adjustments for the child

POST TEST - continued

5. Children in the 7 and 8-year-old category are:

   1. sensitive to what others think of them
   2. prone to resort to physical means more than when they were six
   3. more congenial to play with than before
   4. found to prefer play in groups and clubs

   a. 1, 2, 3
   b. 3
   c. 1, 2
   d. 1, 3, 4

6. Between the ages of 6 and 12, the most common causes of accidental death are:

   1. poison
   2. drowning
   3. motor accidents
   4. fire

   a. 1, 2, 3
   b. 2
   c. 2, 3
   d. 1, 3
   e. 2, 3, 4
   f. 3, 4

7. An allergen invades the body of an allergic person and the system reacts to the invasion by:

   a. producing antibodies
   b. developing a popular rash
   c. becoming resistant
   d. producing immunity

8. An individual suspected of having an allergy may have diagnostic patch or skin tests. These are done to attempt to identify:

   a. a diagnosis
   b. the seriousness of the symptoms
   c. the allergen
   d. effective method of treatment

POST TEST - continued

9. Children of allergic parents should delay the introduction of such foods as:

    1. eggs
    2. Karo syrup
    3. wheat cereal
    4. orange juice
    5. rice cereal

    a. 1, 4, 5
    b. 1, 3, 5
    c. 2, 3, 4
    d. 3, 4, 5
    e. 1, 3, 4

10. An unpleasant side effect of administration of an antihistamine is:

    a. dry mouth
    b. drowsiness
    c. diplopia
    d. anorexia

11. The nurse could reassure the parent of a child with eczema that the skin lesions will not leave a scar unless:

    a. a secondary infection follows scratching
    b. the treatment is discontinued too quickly
    c. they become hemorrhagic
    d. they are overtreated

12. A child with a diagnosis of "seasonal" hay fever will have symptoms present:

    a. most of the time
    b. only when the allergan is present in large amounts
    c. with each change of season
    d. only in the fall when weeds are going to seed

13. Sally has hay fever symptoms when the air is loaded with cottonwood pollen. The symptoms she will complain of are:

    1. sneezing
    2. diarrhea
    3. conjunctivitis
    4. increased nasal drainage

    a. all are correct
    b. 1
    c. 1, 3, 4
    d. 3, 4
    e. 1, 2, 3

POST TEST - continued

14. Parents should be helped to take a very objective attitude about the child's asthmatic attack in an effort to prevent the child from:

    a. using the situation to control
    b. future mental illness
    c. serious physical complications in adult life
    d. physical and emotional overexertion

15. An asthmatic attack could be treated with epinephrine. The expected effects of the medication is to:

    a. reduce nasal edema
    b. produce mucus or liquify thick mucus
    c. reduce emotional tensions and help the patient relax
    d. relax the smooth muscles of the bronchi and bronchioles

16. Morphine should not be used for a sedative during an asthmatic attack as it would cause:

    a. an increased mucus production
    b. relaxation of the bronchiole and stop the wheeze
    c. a decrease in the cough reflex and make it more difficult to get rid of secretions

17. Status asthmaticus is defined as:

    a. chronic condition
    b. initial asthmatic attack
    c. asthmatic attack caused by temperature change
    d. continuous asthmatic attack
    e. asthmatic attack resulting from physical exertion

18. Potassium iodine administered to the asthmatic acts by:

    a. decreasing bronchial secretions
    b. increasing bronchial secretion
    c. liquifying secretions
    d. dilating the bronchi
    e. constricting the bronchi

19. Epilepsy is defined as:

    1. clonic and tonic muscular spasms
    2. periodic attacks of impaired consciousness
    3. dilation of pupils and biting of tongue
    4. incontinency with clonic muscular spasms

    a. all are correct
    b. 1, 2
    c. 1, 2, 3
    d. 2, 3, 4

POST TEST - continued

20. A diagnosis of epilepsy is made on the basis of:

    a. family history, record of seizures, and electroencephalographic abnormalities
    b. record of seizures, blood test, and cerebrospinal fluid test
    c. pneumoencephalgram, family history, and electroencephalographic abnormalities
    d. blood and cerebrospinal fluid studies and family history

21. A major concern of the nurse regarding a child who has a seizure is:

    a. timing the seizure
    b. describing the seizure
    c. preventing patient injury
    d. providing oxygen

22. An epileptic who sees colored lights prior to each seizure is said to have:

    a. petit mal epilepsy
    b. an aura
    c. glaucoma
    d. hallucinations

23. The cry the epileptic gives falling in grand mal convulsions is the result of:

    a. extreme fear of the convulsion
    b. the aura
    c. extreme muscle pain preceding the convulsion
    d. forceful contraction of the respiratory muscles

24. If a child has a grand mal convulsion while up and about, the immediate nursing care will include:

    1. placing the child flat on the floor
    2. protecting the tongue with a mouth wedge
    3. controlling the muscle twitching
    4. protecting the child from environmental dangers

    a. 2, 4
    b. 1, 2, 4
    c. 2, 3, 4
    d. all are correct

25. "Jacksonian seizure" would be recognized as it always:

    a. begins in the same group of muscles
    b. can be cured with surgery
    c. is severe enough to cause injury
    d. can be stopped with an anti-convulsion medication

POST TEST - continued

26. A child with scarred brain tissue from injury has convulsions. It would not be correct to call this:

    a. idiopathic epilepsy
    b. paroxysmal epilepsy
    c. focal seizure
    d. organic

27. Idiopathic grand mal epilepsy is most commonly controlled with:

    1. electroshock therapy
    2. psychotherapy
    3. Phenobarbital
    4. Dilantin

    a. 1, 4
    b. 2, 3
    c. 3, 4
    d. 1, 3, 4

28. Zarontin (Ethasuximide) is a drug of choice in treating:

    a. grand mal seizures
    b. petit mal seizure
    c. infantile seizures

29. Petit mal seizures are characterized by:

    a. motor spasms
    b. incontinence
    c. visual hallucinations
    d. absence spells

30. Understanding the normal growth and development helps in:

    a. knowing when to present more complex experiences to encourage progress
    b. knowing how to meet the expanding needs and interest
    c. recognizing normal and abnormal patterns of development
    d. all are correct

POST TEST - continued

Situation: After a complete examination, Susan was found to have an I.Q. of 65. Questions 31-34 relate to this situation.

31. The nurse could expect Susan to:

    1. talk
    2. walk
    3. feed self
    4. dress self
    5. need supervision

    a. all are correct
    b. 1, 2, 4, 5
    c. 2, 3, 4,
    d. 1, 5
    e. 5

32. An I.Q. of 65 would mean to the nurse that Susan has:

    a. lower limits of normal intelligence
    b. mild retardation, but probably educable
    c. moderate retardation, but probably not trainable
    d. severe retardation and in need of custodial care

33. Causes of mental retardation may include:

    1. trauma
    2. anoxia
    3. genetic disorders
    4. metabolic disorders

    a. 1, 2
    b. 1, 3
    c. all are correct
    d. 1, 2, 4
    e. 1, 2, 3

34. One of the nurse's chief goals in dealing with Susan's family is to have them:

    a. gain a realistic concept of Susan's abilities
    b. persist in helping Susan read at a normal rate
    c. recognize the need to relax most of Susan's discipline
    d. find a suitable school for Susan

POST TEST - continued

35. Which are true of pinworms:

    1. most likely found in early morning before child awakes
    2. family members may be infested thru infected bed linen
    3. enter the body thru the person's feet
    4. may cause appendicitis due to collecting in appendix
    5. eggs enter the body thru lesions on the hand

    a. all are correct
    b. 1, 2, 4
    c. 1, 3, 4
    d. 2, 4, 5

36. To destroy, the ova and worm is the desired treatment of pinworms. This can best be accomplished by the use of:

    1. griseofulvin
    2. Kwell
    3. Povan
    4. Antepar

    a. 1, 3
    b. 2, 3
    c. 1, 4
    d. 3, 4
    e. 2, 3, 4

37. Clinical manifestation of round worm infestation include:

    1. allergy
    2. mild fever
    3. insomnia
    4. atypical pneumonia
    5. nausea and vomiting

    a. 1, 2, 4
    b. 1, 2, 4, 5
    c. 2, 3, 4, 5
    d. 2, 4, 5
    e. all are correct

38. A secondary complication of round worm infestation is:

    a. intestinal obstruction
    b. infectious lesions
    c. anal puritiitis
    d. congestive heart failure

POST TEST - continued

39. The nits of pediculi look like dandruff. One differentiating characteristic of nits is their ability to:

    a. move up and down the shaft of hair
    b. dissolve in soap and water
    c. produce a skin rash
    d. stick tightly to the hair shaft

40. The nurse on a pediatric ward should suspect that the newly admitted child has head lice when the nurse observes:

    1. blood
    2. frequent scratching of the head
    3. scratch marks at the nape of the neck
    4. an excess loss of hair when it is combed

    a. all are correct
    b. 3
    c. 2, 3, 4
    d. 2, 3

41. Kwell is used in the treatment of pediculosis. It is what type of medication:

    a. ointment
    b. oral antibiotic
    c. shampoo
    d. topical powder

42. Tinea capitis can be transmitted to children by:

    1. animals
    2. man
    3. plants
    4. soil

    a. all are correct
    b. 1, 2
    c. 1
    d. 1, 2, 3
    e. 1, 3

43. The oral medication used to treat ringworm is:

    a. Kwell
    b. Povan
    c. Griseofulvin
    d. Mycostatin

POST TEST - continued

Situation: You are the school nurse in a local high school. The boys are frequently sent to you from gym class with the complaint of athlete's foot. Questions 44-45 relate to the situation.

44. You recognize that one of the problems in treating athlete's food is due to the fact that:

    a. it is a worm infestation
    b. it is caused by a fungus
    c. most teenagers are infected
    d. school housekeeping techniques are poor

45. It would be important for the school nurse to advise the gym teacher to explain to the class how athletes foot can be prevented. The nurse would ask the teacher to stress the values of:

    1. wearing a foot covering in wet, damp areas
    2. keeping the area between the toes clean and dry
    3. wearing summer shoes that allow for sweat evaporation
    4. wearing cotton socks to absorb the perspiration

    a. 1, 2, 4
    b. 2
    c. 1, 2
    d. all are correct

46. Osteomyelitis

    a. occurs most often in adults
    b. has an insidious onset
    c. affects mainly the hip bone
    d. is a chronic disease
    e. is a bacterial infection of the bone

47. A diagnosis of osteomyelitis is made on the basis of:

    1. X-ray
    2. blood culture
    3. history of injury
    4. appearance of the patient
    5. laboratory findings

    a. all are correct
    b. 3
    c. 1, 2, 3, 5
    d. 1, 3, 5
    e. 5

POST TEST - continued

48. Symptoms of appendicitis will contraindicate prescribing a laxative because:

    a. it may hide the true symptoms and result in misdiagnosis
    b. the bowel should be at rest when surgery is performed
    c. it is poor preoperative preparation to dehydrate the patient
    d. increased peristaltic action in the bowel may cause rupture of the appendix

49. Symptoms characteristic of appendicitis include all of the following except:

    a. pain
    b. elevated white blood count
    c. septicemia
    d. nausea
    e. vomiting

Situation: Pete has been admitted to the hospital with the diagnosis of Reye's syndrome. The child has beem vomiting and is now somewhat stuporous. Questions 50-51 relate to this situation.

50. One's nursing care for Pete will be centralized around what body system:

    1. respiratory
    2. cardiac
    3. digestive
    4. neurological
    5. genito-urinary

    a. 1, 2, 3, 4
    b. 2, 3, 4, 5
    c. 2, 3, 4
    d. all are correct

51. The cause of Reye's syndrome is:

    a. viral infection
    b. a bacterial infection
    c. a finger infection
    d. unknown

POST TEST - continued

Situation: Grace, 11 years old, is hospitalized for treatment of acute rheumatic fever. She is the oldest of seven children who live at home with their parents. Questions 52-60 relate to this situation.

52. Which of the following is/are predisposing factors to Grace developing rheumatic fever?

    1. being oldest in family
    2. having scarlet fever at age 8
    3. having an aunt who died recently of rheumatic fever
    4. crowded living conditions
    5. rarely sees doctor for check-up

    a. all are correct
    b. 2, 3, 4
    c. 2, 3, 4, 5
    d. 1, 3, 4

53. Which organism is associated with the development of rheumatic fever:

    a. hemolytic streptococcus
    b. gram-negative bacillus
    c. psuedomonas auriginosa
    d. incapsulated diplococcus

54. It was important that Graces' rheumatic fever be diagnosed early in order to:

    a. reduce the amount of antibiotics Grace will need
    b. shorten the length of time Grace will need bedrest
    c. prevent or minimize cardiac damage Grace might suffer
    d. prevent its spread to Grace's pregnant mother

55. In addition to treating Grace's rheumatic fever, the doctor should also:

    a. do a throat culture to see if staph is present
    b. treat Grace's siblings as a preventive measure
    c. keep Grace hospitalized until completely recovered
    d. report the case to the state health department

56. The drug usually prescribed for rheumatic fever is:

    a. Erythromycin
    b. Tetracycline
    c. Streptomycin
    d. Penicillin

57. Grace's hands shake and she spills a lot. The best explanation for this is that:

    a. it is due to chilling
    b. it is a sign of terminal rheumatic fever
    c. it is a sign of chorea
    d. cerebral involvement is progressing

POST TEST - continued

58. Grace is on a large dose of aspirin to relieve the inflammation and pain in her joints. What side effects should the nurse be alert for:

    a. diplopia and tearing
    b. numbness in extremities
    c. polyphagia and constipation
    d. tinnitus and melena

59. After Grace was hospitalized for 2 weeks she became very depressed and withdrawn. What could the nurse do to help relieve this situation:

    a. move Grace where she can be involved in some activities
    b. talk to Grace about patients sicker than herself
    c. explain that she needs psychiatric help at this time
    d. move Grace so she can watch television

60. Prior to Grace's discharge, her parents will receive instructions concerning:

    a. high protein diet, immunizations, and avoidance of those having upper respiratory infections
    b. proper nutrition, avoidance of those having upper respiratory infections, prophylactic medication, and limited activity
    c. routine immunization, limited activity and low-fat diet
    d. limited activity, administration of salicylates, and vitamin supplements

61. Rheumatic heart disease is more prevalent in:

    a. lower socio-economic groups
    b. persons who have chronically infected tonsils
    c. persons who have had rheumatic fever
    d. those prone to staph infections

62. Manifestations of rheumatic fever may include:

    1. carditis
    2. scoliosis
    3. polyarthritis
    4. epistaxis
    5. erythema marginatum

    a. all are correct
    b. 1, 3, 4, 5
    c. 1, 3, 4
    d. 1, 2, 3, 5

POST TEST - continued

63. Polyarthritis is characterized by:

    1. crippling joint deformities
    2. migrating pain
    3. emotional instability
    4. a specific type of rash
    5. swollen joints

    a. 2, 5
    b. 1, 3, 5
    c. 1, 2, 3, 4
    d. 2, 3, 4, 5

64. Perthes' disease produces problems of mobility in the child as the disease deteriorates the:

    a. patella
    b. ends of the bones
    c. nerve stimulation to the bone
    d. head of the femur

65. The most important point in treatment of Perthes's disease is the avoidance of:

    a. constant pain
    b. weight bearing
    c. adduction
    d. prolonged immobility

66. David, age 8, is having enuresis. The best course of action to be taken is:

    a. not permitting the child to attend soccer practice until he can resolve the enuresis
    b. by restricting the child's fluids before bedtime
    c. by a mechanical device to waken the child every three hours
    d. to make an effort to discover the cause of emotional stress

67. There are three known causes of mongolism, all of which are associated with:

    a. chromosomal abnormalities
    b. birth defects
    d. hereditary
    e. viral infections during pregnancy

68. The best course of treatment for the mongoloid patient is:

    a. placement in a private home
    b. rehabilitation
    c. habilitation
    d. institutionalization

POST TEST - concluded

69. Which signs might be present at birth that could indicate mongolism:

1. appears oriental
2. eyes close together
3. Brushfield's spots
4. simian crease
5. hypotonia

a. all are correct
b. 1, 2, 4, 5
c. 1, 3, 5
d. 2, 3, 4, 5
e. 2, 3, 4

ANSWERS TO POST TEST

Module F

1. b
2. a
3. d
4. a
5. d
6. c
7. a
8. c
9. e
10. b
11. a
12. b
13. c
14. a
15. d
16. c
17. d
18. c
19. b
20. a
21. c
22. b
23. d
24. b
25. a
26. a
27. c
28. b
29. d
30. d
31. a
32. b
33. c
34. a
35. b
36. d
37. e
38. a
39. d
40. d
41. c
42. b
43. c
44. b
45. d
46. e
47. c
48. d
49. c
50. d
51. d
52. c
53. a
54. c
55. b
56. d
57. c
58. d
59. a
60. b
61. c
62. b
63. a
64. d
65. b
66. d
67. a
68. c
69. a

POST TEST

Module G

Directions: Select the one best response to the following questions and circle the letter of the appropriate response on your answer sheet. DO NOT WRITE ON THIS TEST.

1. Erikson defines the core task of early adolescence as achieving a sense of:

    a. industry
    b. identity
    c. intimacy
    d. integrity

2. The anatomic and physiologic changes of puberty are chiefly the result of:

    a. pituitary and gonadal maturation
    b. secretions of adrenal and sebaceous glands
    c. estrogenic and androgenic activity
    d. ovarian and/or testicular maturation

3. Nocturnal emissions occur as a result of:

    a. masturbation
    b. normal physiologic activity
    c. preoccupation with sex
    d. gonadal inflammation

4. A major cause of clumsiness during early puberty is:

    a. a conscious need for attention
    b. central nervous system development exceeds growth
    c. hormone changes impair muscular coordination
    d. skeletal growth exceeds muscular growth

5. During adolescence, nutritional requirements are:

    a. less than in school age due to decreased activity
    b. increased slightly due to growth
    c. greatly increased due to physical growth and development
    d. the same as during school age since growth and activity changes balance out

6. The dietary requirements of the teenager are primarily affected by:

    a. their increased rate of growth
    b. their desire for approval from family and friends
    c. their social interest
    d. resistance to parental supervision

POST TEST - continued

7. The most frequent cause of malnutrition in adolescent girls is:

   a. "crash diets"
   b. anorexia nervosa
   c. preoccupation with sex
   d. neurotic desire for a good figure

8. The teenager needs:

   1. domineering attention
   2. doting affection
   3. a fair system of rights
   4. duties that are consistently enforced

   a. all are correct
   b. none are correct
   c. 1, 2
   d. 3, 4

9. The needs of the adolescent include:

   a. acceptance by elders
   b. parental understanding of emotional responses
   c. a sense of adventure and fun
   d. all are correct

10. Menstruation should be explained to girls and nocturnal emissions to boys well in advance:

    a. so that their occurrence does not cause new fears and anxieties
    b. so that they can in turn teach their friends
    c. to make them worldly
    d. so they can discuss sex fully with peer group

11. Menarche refers to:

    a. puberty
    b. first menses
    c. menstrual period
    d. fertility rites

12. A 14-year-old girl asked the school nurse if she may participate in gym class during her mentrual period. The most appropriate answer would be:

    a. "It is probably all right unless you are having a heavy flow or bad cramps."
    b. "The amount of blood loss is likely to make you feel weak or dizzy."
    c. "There is no reason why not. Menstruation is a perfectly normal process."
    d. "Almost any girl can do what she usually does during her period. Why do you ask?"

POST TEST - continued

13. Dysmenorrhea is more often a problem in the adolescent girl who:

    1. begins menstruating early
    2. is not athletic
    3. has muscle spasms of the uterus
    4. has nervous tension
    5. has hormonal imbalance

    a. 1, 3, 5
    b. 3, 4, 5
    c. 1, 2, 3, 4
    d. 2, 3, 4, 5
    e. 1, 3, 4

14. The application of heat to the abdomen, or a hot bath, may relieve dysmenorrhea that is caused by:

    a. emotional rejection of the menstrual process
    b. uterinal congestion
    c. uterine muscle spasm
    d. inability to expell the mucus plug in the cervix

15. Gynecomastia is defined as enlargement:

    a. of mammary tissue in the male
    b. of mammary tissue in the female
    c. an inflammation of the mammary tissue in the male
    d. an inflammation of the mammary tissue in the female

16. Breast size increase during the menstrual cycle is in response to:

    1. estrogen elevation
    2. fluid retention
    3. progesterone elevation

    a. 3
    b. 1, 3
    c. all are correct

17. The incidence of acne vulgaris during adolescence is:

    a. higher in late maturing girls
    b. about equal in boys and girls
    c. higher in boys
    d. higher in girls

POST TEST - continued

18. Factors that provoke acne include:

    1. poor general hygiene and faulty nutrition
    2. genetic factors and endocrine activity
    3. trying to remove blackheads with dirty hands
    4. a poorly balanced diet and inadequate rest
    5. emotional conflict and external occurrences

    a. all are correct
    b. 1, 3, 4
    c. 1, 2, 4, 5
    d. 2, 4, 5

19. Jeanne asks you how to remove blackheads from her face. You answer:

    a. "You should never try to remove them yourself. Have a friend help you."
    b. "Wash your hands thoroughly and pull the skin taut on either side of the blackhead."
    c. "Be sure your hands are clean and gently squeeze the skin around the blackhead."
    d. "Wash your face as often as possible with a rough washcloth and plenty of soap."

20. Acne vulgaris and obesity threaten what aspect of the adolescent psychological development:

    a. self-identity
    b. self-respect
    c. self-image
    d. self-esteem

21. The main cause of obesity in the adolescent can be traced to:

    a. overeating with inactivity
    b. overeating with hyperactivity
    c. emotional difficulties
    d. hereditary

22. An individual in the early stages of scoliosis would have which symptoms:

    1. pain
    2. no pain
    3. one elevated shoulder
    4. one prominent hip
    5. spinal curve

    a. all are correct
    b. 5
    c. 1, 3, 4, 5
    d. 2, 3, 4, 5
    e. 3, 4, 5

POST TEST - continued

23. A positive reaction to a tuberculin skin test tells the doctor that the patient:

    a. has good resistance to tuberculosis
    b. is or has been attacked by tubercle bacilli
    c. has tuberculosis and should have a chest x-ray
    d. is cured of tuberculosis and never needs to worry again

24. One of the first things a hospitalized child with tuberculosis is taught for the protection of employees and visitors is:

    a. to be happy doing nothing
    b. to dispose of sputum to avoid spreading germs
    c. to avoid close contact with all people
    d. to keep up a good nutritional state by eating all the food on the tray

25. The tubercle bacilli of the human variety are spread to others by:

    1. articles contaminated with bacilli
    2. drinking contaminated milk
    3. sputum containing active bacilli
    4. bacilli leaving the body of the person with active tuberculosis and being ingested by another

    a. all are correct
    b. none are correct
    c. 1, 3, 4
    d. 1, 2, 3

26. A toxic symptom of streptomycin that would make it dangerous to continue giving the medication is:

    a. vomiting
    b. deafness
    c. diarrhea
    d. dizziness

27. In addition to the side effects of streptomycin, the tubercle bacilli are becoming resistant to the drug. The drug usually substituted due to its low toxicity is:

    a. PAS
    b. Isoniozid
    c. Dihydrostreptomycin
    d. penicillin

28. A special effort should be made to give PAS at mealtime. If it is not taken then, the nurse can expect the patient to complain of:

    a. constipation
    b. dizziness
    c. stomach discomfort
    d. ringing in the ears

POST TEST - continued

29. Causative agent in infectious mononucleosis is a:

    a. virus
    b. bacteria
    c. fungus
    d. spore

30. Treatment and nursing care for the patient with infectious mononucleosis include:

    a. immediate hospitalization
    b. bedrest for at least 5 months
    c. inactivity and antibiotics
    d. symptomatic management

31. A major difference between juvenile onset and maturity onset diabetes is that:

    a. maturity onset is more severe
    b. juvenile onset is easier to control
    c. juvenile onset usually requires the use of insulin
    d. maturity onset can always be controlled with P.O. medication

32. Diabetes can reliably be diagnosed by:

    a. glucose tolerance test
    b. finding sugar in urine
    c. elevated blood sugar
    d. rapid onset of obesity

33. Diabetes insipidus differs from diabetes mellitus in that it:

    a. occurs only in children
    b. results from pituitary dysfunction
    c. is the form of juvenile diabetes treated with diet alone
    d. is caused by malabsorption not pancreatic dysfunction

34. One of the most important nursing responsibilities in caring for a child with diabetes is to:

    a. help the child and parents develop positive attitudes toward the condition
    b. encourage the child to continue to assume a share of family responsibility
    c. arrange for visiting nurse care in the home
    d. teach the child about all aspects of diet limitations

35. When the diabetic has more insulin available to cells than there is food material to be burned, the complication that results is:

    a. diabetic coma
    b. convulsions
    c. hyperglycemia
    d. hypoglycemia

POST TEST - continued

36. The nurse will know that insulin shock may be caused by:

    1. too much insulin
    2. too little food
    3. a high carbohydrate intake
    4. vomiting and/or diarrhea

    a. all are correct
    b. 1, 2
    c. 3
    d. 1, 2, 4

37. Characteristics of insulin shock include:

    1. weakness
    2. blurred vision
    3. abdominal pain
    4. stupor
    5. acetone breath

    a. 1, 2, 4
    b. 1, 2, 3, 4
    c. 3, 4, 5
    d. 1, 2, 5

38. Which is characteristic of diabetic coma:

    1. thirst
    2. pallor
    3. diaphoresis
    4. rapid pulse
    5. acetone breath

    a. 1, 4, 5
    b. 2, 3, 5
    c. 2, 5
    d. 1, 2, 3, 4

39. Which types of insulin has onset in 1/2 hr, peak in 2-4 hrs. and lasts 6-8 hrs?

    a. Regular
    b. NPH
    c. Lente
    D. P.Z.I.

40. Which types of insulin has onset in 2 hrs, peak in 8-10 hrs and lasts about 24 hrs?

    a. Regular
    b. NPH
    c. Semi-Lente
    D. P.Z.I.

POST TEST - continued

41. In teaching adolescents how to prepare and give their own insulin injections, the nurse must stress the importance of:

    1. rotating the insulin bottle
    2. figuring the dosage in minims
    3. keeping the needle and syringe sterile
    4. rotating the injection site

    a. 3, 4
    b. 3
    c. 1, 3, 4
    d. 2, 3, 4
    e. 1, 2, 4

42. Jan, a diabetic, has bought U 80 insulin. She has a 40-80 unit insulin syringe. Her ordered dosage is 20 units. If she fills the syringe to U 20 mark on the U 40 side of the syringe, the nurse must be sure to emphasize that she will be taking:

    a. twice as much as is ordered
    b. half as much as is ordered
    c. an overdose
    d. an incorrect amount

43. While a rape trauma initially affects the total life style of the child, the main task in the long term reorganization phase focuses on repairing these disruptions and helping the victim return to a pre-crisis level of health.

    a. true
    b. false

44. With the family acting as the rape victim's strongest support system, the ability of this social unit to deal with the attack often determines:

    a. effectiveness of long-term follow-up
    b. extent of subsequent involvement by health professionals
    c. speedy resolution of the immediate crisis
    d. strength the child will have in resolving the effects of the assault

45. Rape is a crime of:

    1. violence
    2. aggression
    3. sex

    a. 1
    b. 3
    c. 1, 2
    d. all are correct

POST TEST - continued

46. Premarital sex for the adolescent is an attempt to:

    a. prove their sexuality
    b. establish a long lasting relationship
    c. to further define their identity
    d. fulfill their need for love

47. Pregnant teenagers are a high risk in which areas:

    1. educationally
    2. medically
    3. socially
    4. parentally

    a. 2
    b. 4
    c. 1, 2, 3
    d. 2, 3, 4
    e. all are correct

48. Many adolescents do not choose a contraceptive method such as the pill because:

    a. coitus interruption and/or condome provides sufficient contraception
    b. they have intercourse infrequently; and only frequent intercourse requires contraception
    c. the natural method of abstenance is used most frequently
    d. the use of contraceptives indicates that they had planned intercourse

49. A minor V.D. can be treated without parental consent:

    a. true
    b. false

50. Gonorrhea is so often the cause of sterility in the female because the inflammation:

    a. dilates the hyman
    b. prevents ovulation
    c. obstructs Bartholins gland
    d. blocks the fallopian tubes

51. It is more difficult to make an early diagnosis of syphilis in women than in men because:

    a. a woman refuses to seek medical advise
    b. the chancre is less painful in the women
    c. the chancre is hidden in the vagina
    d. the symptoms are milder

POST TEST - continued

52. Genital herpes are due to what type of organism that has no specific treatment:

a. bacteria
b. virus
c. fungus
d. type 2 bacteria

53. When treating juvenile delinquents, factors to consider are:

1. their sense of worthlessness
2. the total individual
3. the delinquent act alone
4. their environment

a. 1, 2
b. 1, 2, 4
c. 2, 3, 4
d. 1, 4

54. Treatment of the juvenile delinquent requires that:

a. the individual be placed in a foster home
b. treatment be to the total individual
c. emphasis should be placed on the delinquent act committed
d. the individual be treated as an adult for adult crimes

55. Glue sniffing may produce permanent brain, liver and kidney damage:

a. true
b. false

56. Marijuana is a stepping stone to heroin:

a. true
b. false

57. Drugs may either be psychologically or physically addicting:

a. true
b. false

58. Methodone is non-addictive and used to treat heroin addicts.

a. true
b. false

59. Nicotine creates physical dependence.

a. true
b. false

POST TEST - concluded

60. "Uppers" are a slang name for Amphetamines."

    a. true
    b. false

61. Which drugs are CNS depressants?

    1. Phenobarbital
    2. Benzedrine
    3. Cocaine
    4. Thorazine
    5. Heroin

    a. all of the above
    b. 2, 3, 5
    c. 5
    d. 1, 4, 5
    e. 3, 4, 5

62. Suicide is the logical way out when the adolescent feels:

    1. bad and unloved
    2. the present is unbearable
    3. the future is hopeless
    4. socially isolated

    a. 1, 2, 3
    b. 3
    c. 1, 2
    d. all are correct

ANSWERS TO POST TEST

Module G

1. b
2. a
3. b
4. d
5. c
6. a
7. a
8. d
9. d
10. a
11. b
12. d
13. b
14. c
15. a
16. c
17. b
18. c
19. d
20. c
21. a
22. d
23. b
24. b
25. a
26. b
27. b
28. c
29. a
30. d
31. c
32. a
33. b
34. a
35. d
36. d
37. a
38. a
39. a
40. b
41. c
42. a
43. a
44. d
45. c
46. c
47. e
48. d
49. a
50. d
51. c
52. b
53. d
54. b
55. a
56. b
57. a
58. b
59. b
60. a
61. d
62. d

Unit 15 emphasizes communication skills and observations through the use of group discussion, role-playing and audiovisual aids. Concepts of mental health important to the practical nurse are presented.

CONCEPTS OF MENTAL HEALTH

Module A - Personality and Behavior
Module B - Mental Health and Mental Illness
Module C - Current Trends in Treatment of Mental Illness
Module D - Suicide and Death
Module E - Drug Abuse
Terminology - A terminology section follows each module
Post Tests: 1. Modules A, B and C
2. Modules D and E

When you have completed the learning activities and are ready for a test or wish to challenge a test, please see your instructor.

Suggested References

The following texts and audiovisuals will supplement the learning materials for this unit. If you are unable to locate these materials, your instructor will assist you.

1. Johnston, Mabyl, R.N.M.A. Mental Health and Mental Illness. J.B. Lippincott Company, Philadelphia, PA, 1976.

*2. The United Way Directory of Social Resources, Tucson Community Council, 1979.

*This could be any social resource book from any community depending on where the curriculum is being used.

Suggested References (continued)

Audiovisuals

1. Trainex Corporation's Mental Health Series, Garden Grove, California

   Stress Tension and the Relaxation Response #514

   Anxiety #353

   Depression #354

   Schizophrenia #355

   Assessment in the Nursing Process #485

CONCEPTS OF MENTAL HEALTH

Module A - Personality and Behavior, Mental Health vs. Mental Illness

RATIONALE

Understanding personality and behavior is essential in studying mental health. It is necessary to understand the definition of mental health to understand the world of mental illness.

PERFORMANCE OBJECTIVES

To the instructor's satisfaction, you will:

1. Identify vocabulary terms found in this module when given specific situations on a written test.
2. Identify concepts of personality and their respective authors.
3. Recognize specific coping behavior in response to stress in the clinical area and on a written test.
4. Identify on a written test healthy adaptive mechanisms.
5. Be able to assess the physical and psychological care needed and institute nursing actions to alleviate stress by methods found in this module when given an assignment in the clinical area.
6. Identify the classifications of mental illness and their characteristics.

LEARNING ACTIVITIES

Directions: The material needed to complete this module is included in this module, in the textbook Mental Health and Mental Illness by Morgan and Johnston pages 40-47 and in the Trainex filmstrip #485, Assessment in the Nursing Process, and #353, Anxiety. Exercises are included in this module to help you prepare for your post test. If you have any questions please see your instructor.

ACTIVITY #1. Personality

Directions: Read the following information.

Personality, in a technical sense, is all that a person does and feels consciously and unconsciously while interacting with the environment. It is the inward organization of an individual interacting with the organization of the immediate environment. Behavior in both its outward and inward manifestations is a function or expression of personality. All behavior is learned.

LEARNING ACTIVITIES - continued

There is within each of us something that we label "ourselves," something that makes us different from every other human who has ever lived. Our personality reveals at least a portion of ourselves to other people. It is an expression of what we are inside. Each individual's personality has developed from many influences throughout life.

Factors that influence the development of our personality have been described as both the inner needs or desires and the surroundings to which each of us must adjust. Personality is the sum total of a person: attitudes, drives, wishes, desires to achieve, inhibitions, hopes, worries, strengths and weaknesses.

Directions: Complete the following exercise. Fill in the blank spaces.

1. Personality is the ______________________________ of the person.
2. What factors influence the development of our personalities? ______________________ and ______________________.
3. ______________________ in both its outward and inward manifestations, is a function or expression of personality.
4. How would you describe your general personality? ______________________________
____
____
5. Personality in a technical sense is ______________________________
____

Answers can be found by rereading the material.

ACTIVITY #2. Concepts of Personality

Directions: Read the following.

Sigmund Freud (1856 - 1939) was an Austrian physician who developed a theory of personality and an approach to psychotherapy that stood in contrast with older laboratory-based theories. Freud theorized that the core of personality is formed before age six in a series of psychosexual stages. Freud's emphasis on infantile sexuality is one of the most controversial aspects of his thinking. However, Freud used the term sex very broadly to mean any pleasurable activity. Freud identified four psychosexual stages, the oral, the anal, phallic and genital. Freud believed that many adult personality traits could be traced to problems or fixations in one or more stages.

Freud's Four Stages

1. Oral Stage - During an infant's first year of life, most of the infant's pleasure comes from stimulation of the mouth. If a child is overfed or frustrated during this time, oral traits may be created. According to Freud adult expressions of oral traits include gumchewing, nail biting, smoking and excessive eating and drinking.

LEARNING ACTIVITIES - continued

2. Anal Stage - Between the ages of one and three the child's attention shifts to the process of elimination. While being toilet trained, a child either seeks approval or resorts to rebellion and aggression by "holding on" or "letting go." According to Freud, if the toilet training is overly harsh and persistent, adult personality traits or fixations may develop. The adult's "holding on" personality is characterized as obstinate, stingy, and compulsively orderly and clean. The "letting go" personality is disorderly, destructive, cruel or messy.

3. Phallic Stage - Freud theorized that between the ages of three and six increased sexual awareness causes a child to become physically attracted to the parent of the opposite sex. This attraction causes internal anxieties for the child. In order to work through these anxieties and to be accepted by the parent of the opposite sex, the child identifies with and takes on those values of the parent of the same sex. Adult characteristics of a "phallic" personality are vanity, exhibitionism, sensitive pride and narcissism (self love).

4. Genital Stage - According to Freud, the last stage of personality formation comes after a long period of latency (interruption). The genital stage begins at puberty and is marked by a growing capacity for a mature and responsible social-sexual relationship. The genital stage is characterized by heterosexual love and the fulfillment of full adult sexuality.

Sigmund Freud viewed personality as comprised of three different structures, the id, the ego and the superego. A healthy personality is the product of harmony between these structures.

These three parts of the personality are described as follows:

1. The Id (instincts) - This part of the personality develops from birth to one year. The id is entirely unconscious and is the part of ourselves that represents our basic drives. The id operates on the "pleasure principle," and seeks immediate gratification of basic needs and avoidance of pain, hunger, cold, etc. These basic needs are:

    a. Survival

    b. Warmth

    c. Comfort

    d. Water

    e. Oxygen

    f. Sexual energies

2. The ego (The conscious part of personality) - This is the part of ourselves in closest touch with reality. Ego is consciousness. The ego establishes our relationship with the outside world. It begins developing in infancy as we begin to learn our position in the environment (self awareness) and continues to age five. The ego acts as a buffer between the id and the environment. Being aware of reality, the ego knows that certain desires and immediate gratification sometimes need to be postponed. Ego functions under the "reality principle."

LEARNING ACTIVITIES - continued

3. The superego - The superego is the part of our personality that includes our thoughts, feelings, attitudes and behavioral tendencies dealing with right and wrong. The superego represents behavior that parents, traditions, significant persons and society influence. It can restrict our behavior and act as our conscience. According to Freud, a person with a poorly developed superego will have a delinquent, criminal or antisocial personality. An overly strict or restrained superego will cause inhibition, rigidity or intolerable guilt. This part of personality develops at ages six and older.

Example of the three personality structures in action:

Let's say you are sexually attracted to someone. The id desires satisfaction of its sexual desires but is opposed by the superego.

The id says, "Now, now, now!" The superego responds, "never!" and the ego says, "I have a plan!"

In its attempts to reduce tension, the ego could initiate actions leading to friendship, romance, courtship and marriage. If the id is unusually powerful, the ego may direct an attemped seduction. If the superego is dominant, the ego may be forced to channel sexual energies to other activities (sports, music, dancing).

The approximate levels of awareness between the id, ego, superego are expressed in Figure I.

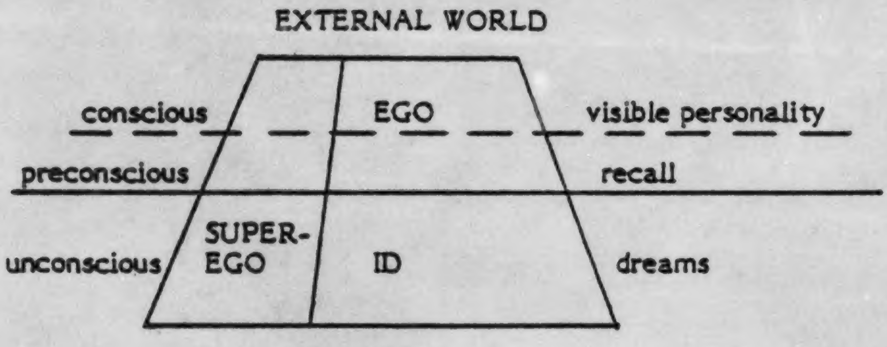


FIGURE I

Humanistic Theory

The humanistic theory of personality is a different explanation that emphasizes immediate, subjective experience rather than prior learning. Humanists tend to be optimistic in their belief that people are motivated not merely to survive but to strive for self-actualization (reaching one's full potential).

Abraham Maslow (1908 - 1970) was a psychologist who developed a humanistic view of personality that opposes Sigmund Freud's ideas that we are strongly influenced by the unconscious. Humanists believe in people's ability to make choices and realistically be in touch with themselves and others. Maslow proposed that there is a hierarchy of basic human needs that influence behavior. Needs necessary for survival are dominant over higher needs.

LEARNING ACTIVITIES - continued

Refer to Figure 2. The needs, as defined by Maslow, must be fulfilled in a certain order. Before a person can belong or be loved and love (#3) that person must feel safe (#2). Before a person can be self-expressive (#5) that person must have been loved (#3) and have been respected (#4). Basic to all is (#1) physiological integrity.

MASLOW'S HIERARCHY

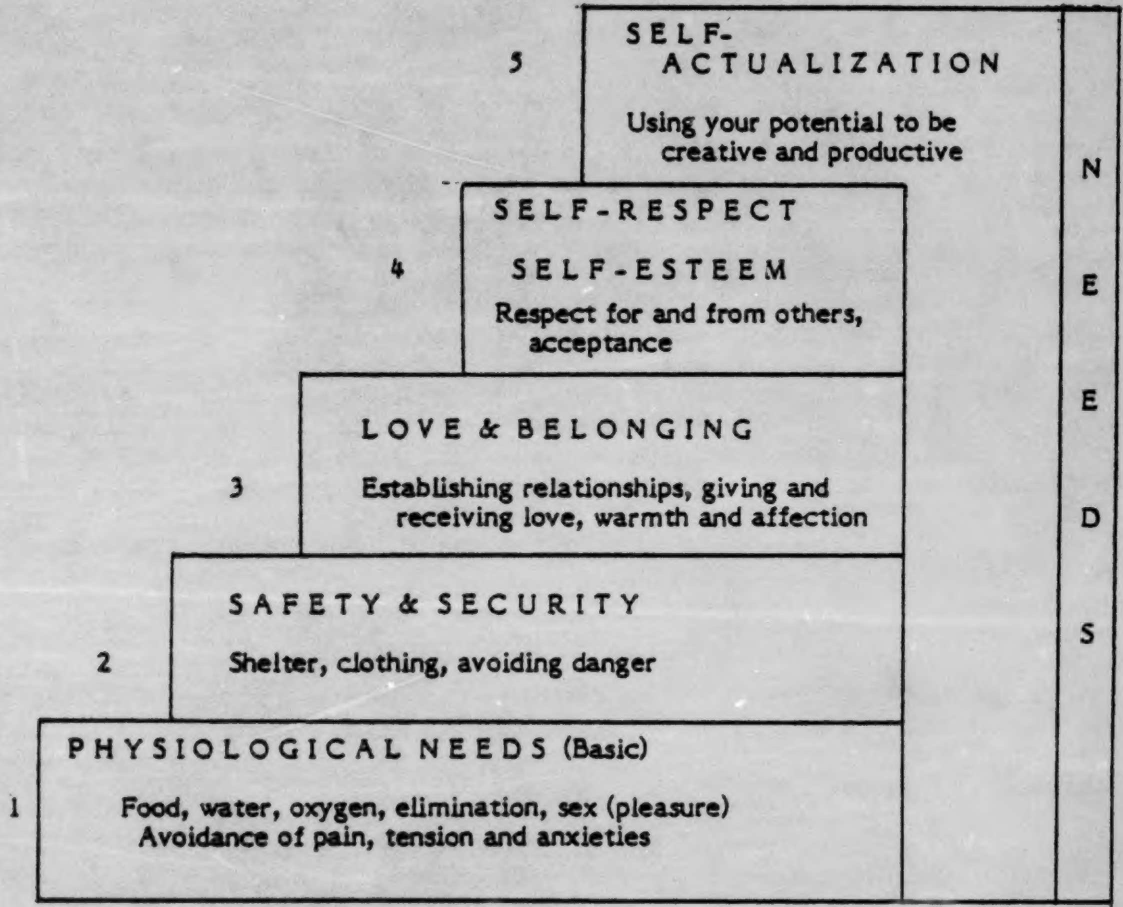

5
SELF-ACTUALIZATION
Using your potential to be creative and productive
4
SELF-RESPECT
SELF-ESTEEM
Respect for and from others, acceptance
3
LOVE & BELONGING
Establishing relationships, giving and receiving love, warmth and affection
2
SAFETY & SECURITY
Shelter, clothing, avoiding danger
1
PHYSIOLOGICAL NEEDS (Basic)
Food, water, oxygen, elimination, sex (pleasure)
Avoidance of pain, tension and anxieties
NEEDS

FIGURE 2

There are many psychologists whose theories fall within the humanistic tradition. The best known are Carl Rogers and Abraham Maslow. According to them, some ways to begin the process of self-actualization are:

1. Be willing to change.
2. Take responsibility.
3. Examine your motives.
4. Experience life honestly and directly.

LEARNING ACTIVITIES - continued

5. Make use of positive experiences.
6. Be prepared to be different.
7. Get involved.
8. Slow down.
9. Start a personal journal.
10. Assess your progress.

According to humanistic theorists, there should be a noticeable improvement in the quality of your daily life and a greater acceptance of yourself and others if you begin the above steps in the process of self-actualization.

To help you understand Maslow's hierarchy, imagine the following situation. A patient is admitted to the hospital with a serious head injury. The patient cannot move or speak but has a good chance of regaining these functions. Before rehabilitation can begin, the patient must be nourished and made comfortable. Once safe and secure the patient can concentrate on rehabilitating his body to be able to move and speak again. The patient needs to feel accepted by those around him in order to gain confidence. As the patient is encouraged to move and speak again, his self-respect and confidence grow and his recovery can be successfully completed.

Only as individuals achieve satisfaction of their basic needs are they free to function on a more mature level.

Below are listed other individual theories about personality. Each theory by organizing observations of human behavior has made significant contributions to our understanding personality. All of these theories are neither true nor false but stimulate research and suggest ways to treat psychological disorders.

Alfred Adler: Social Feeling

Alfred Adler, a psychiatrist, refers to a feeling of oneness, a brotherly feeling towards one's fellow man. Fellow men are worthy beings to be regarded as ends in themselves, not as threats or as mere tools to be used for self-advancement. This theory places emphasis on one's own choices and their logical consequences.

Otto Rank: Creativity, Individuality and Affirmation of One's Own Will

For Otto Rank, healthy personality implies the courage to become a separate person, courage to express differences from others and courage to be inventive and creative. His emphasis is on willingness, creativity, individuality and emancipation from dependency upon others.

Carl Jung: The Attainment of Self-Realization

Self-realization requires that people become aware of the repressed "shadow" part of their personality and struggle to express these in their way of life. Jung sought to help people whose lives had become stale. For Jung, a healthy personality results from an endless struggle to discover and express repressed possibilities of functioning.

LEARNING ACTIVITIES - continued

Fritz Perls: Gestalt Therapy, Experiencing Here and Now

According to Fritz Perls, the average person comes to fear living and experiencing the "here and now." People tend to live mainly in the past, through obsessive remembering, and in the future, through anxious expectations of catastrophe. People with healthy personalities struggle to emancipate themselves from morbidly dependent relationships with others. They are capable of awareness of their perceptions and feelings.

Eric Berne: Transactional Analysis

Eric Berne believes that a healthy personality consists of a belief in one's personal worth, the ability to make reasonable demands upon others and to deal honestly with others. He believes there are three parts to an indiviual's personality. They are the parent (P), the adult (A) and the child (C).

Parent	(P) -	Feels and behaves as a mother or father or someone in parental position. Can be critical, demanding and/or helping. Example: "You must," "You should."
Adult	(A) -	Figures things out by looking up facts and/or asking questions and uses these facts and answers to make decisions. Example: "How does this work?"
Child	(C) -	Feels and behaves in ways you did when you were very young. Reacts with emotions. Example: "I want what I want when I want it."

Listen to the voices within you and you will "hear" your parent, adult and child. You may not always hear words but you will get messages from the feelings within you.

Source: Coon, Dennis. Introduction to Psychology, Los Angeles: West Publishing Company, 1977.

ACTIVITY #3. Exercise

Directions: Complete the following exercises by reviewing the material you have read and write your answers in the space provided. You will also use your book and Trainex #485 in this exercise. Be prepared to discuss your answers in class.

1. Describe the three parts of the personality as described by Freud.

a. ______________________________

____

b. ______________________________

____

c. ______________________________

____

LEARNING ACTIVITIES - continued

2. List Freud's four stages of personality formation.

   a. ______________________________

   b. ______________________________

   c. ______________________________

   d. ______________________________

3. Name the two most well-known theorists who developed the humanistic traditions.

   a. ______________________________

   b. ______________________________

4. In your own words describe Maslow's hierarchy of needs in relationship to personality.

   ____

   ____

   ____

   ____

5. Clinical Assignment: Choose one patient for whom you provided care this week. List and discuss his/her needs and state at which level those needs fall in Maslow's hierarchy.

   ____

   ____

   ____

6. Directions: View the Trainex program #485, Assessment in the Nursing Process, and answer the following questions in your own words.

   a. List the specific needs of Mr. Jones and Mrs. Wilson and state where these needs fit in Maslow's hierarchy of needs.

      Mr. Jones' needs: ______________________________

      ____

      ____

LEARNING ACTIVITIES - continued

Mrs. Wilson's needs: ______________________________

____

____

7. Read pages 40 - 47 of the textbook Mental Health and Mental Illness and list the eight stages of personality growth described by Erickson. Identify and explain the development task in each stage.

a. ______________________________

____

b. ______________________________

____

c. ______________________________

____

d. ______________________________

____

e. ______________________________

____

f. ______________________________

____

g. ______________________________

____

h. ______________________________

____

8. Describe Freud's definition of the conscious and the unconscious parts of the mind.

____

____

____

____

LEARNING ACTIVITIES - continued

9. List and describe Eric Berne's three parts to an individual's personality.

   a. ____________________

   ____

   b. ____________________

   ____

   c. ____________________

   ____

10. Name at least five ways to begin the process of self-actualization according to the humanistic theory.

    a. ____________________

    ____

    b. ____________________

    ____

    c. ____________________

    ____

    d. ____________________

    ____

    e. ____________________

11. Describe Fritz Perl's theory on personality.

    ____

    ____

    ____

    ____

LEARNING ACTIVITIES - continued

ACTIVITY #4. Anxiety

Directions: Read the following and view the Trainex filmstrip #353, Anxiety.

Anxiety is a reaction to any situation that threatens an individual's identity or self-esteem or causes an individual to feel helpless, isolated or insecure. Anxiety occurs in degrees and is often non-specific. Anxiety is described as a vague uneasy feeling of dread, nervousness and apprehension. Active or passive behavior may be a response to anxiety and may involve aggression, hostility, indifference or withdrawal.

As a nurse you will often see patients in different stages of anxiety and you must be alert to signals or clues of anxiety reactions in order to intervene and assist the patient therapeutically.

There are three stages of anxiety:

DEGREE OF ANXIETY	STATE OF AWARENESS
1. Mild	Person is able to focus on most of what is happening, person may be more alert mentally and physically as the body's "flight or fight" actions occur. Therefore a mild degree of anxiety may actually assist a person in a better performance of tasks.
2. Moderate	Person has limited ability to focus on what is really happening. Moderate anxiety can be harmful because increasing tension and fear can block out useful and reasonable activity, small things can be blown out of proportion.
3. Severe	Person cannot focus on what is really happening. Severe anxiety is panic. Panic is defined as a temporary disorganization of personality. A person in a severe state of anxiety may react with unusual or irrational behavior.

Some commonly recognized symptoms of anxiety in patients are:

1. Fatigue
2. Insomnia
3. Diarrhea
4. Urgency of voiding
5. Sweaty palms

LEARNING ACTIVITIES - continued

6. Anorexia
7. Increased pulse rate and respirations
8. Inability to concentrate

You can often help reduce a patient's level of anxiety in the following ways.

1. Recognize anxiety in your patient.
2. Gain insight into why the patient feels threatened.
3. Assist the patient to cope with the threat by:
    a. Learning what resources and services are available to assist with specific problems (financial, clergy, social services, etc.).
    b. Maintaining a consistent, kind and accepting manner.
    c. Listening without offering advice (the open-ended question is often very effective).
    d. Assisting the patient to find outlets for anxieties.
    e. Explaining all tests, procedures and treatments.

__Directions:__ Complete the following questions and exercises on anxiety by reviewing the material you have read and writing your answers in the space provided. Be prepared to discuss your answers in a class discussion.

1. ____________________ is described as a vague, uneasy feeling of dread, nervousness and apprehension.

2. List the three stages of anxiety.

    a. ____

    b. ____

    c. ____

3. List five common symptoms you may observe in the anxious patient.

    a. ____

    b. ____

    c. ____

    d. ____

    e. ____

LEARNING ACTIVITIES - continued

4. List five actions that the nurse can take to assist a patient in coping with anxieties.

   a. ______________________________

   b. ______________________________

   c. ______________________________

   d. ______________________________

   e. ______________________________

5. Describe a specific situation that caused you to feel anxious and explain how you coped with your anxieties.

   ____

   ____

   ____

   ____

ACTIVITY #5. Emotional Reactions Common to Patients

Directions: Read the following.

When a person makes a transition from good health to illness, many emotional and personal problems may be exaggerated by the illness, which in turn adds to the stress of the experience. Some common feelings experienced by many patients are:

1. Fear of alteration of body image
2. Feelings of guilt or shame for being ill
3. Feelings of pessimism, depression and rejection
4. Fear of pain and invasion of privacy
5. Loneliness and confusion
6. Worry of personal problems at home

Some common emotional reactions to illness are listed below.

Fear - An emotional response to expectations of harm or unpleasantness. The person is usually aware of the danger and has insight into the reasons for this fear.

Stress - Strain or tension. Stress occurs most often in circumstances requiring prolonged efforts to adjust to a situation.

LEARNING ACTIVITIES - continued

Anger - An emotion associated with frustration as the patient struggles with a threatening or unpleasant situation. Anger is common when self-respect has been lowered or when a goal is blocked or cannot be reached.

Hostility - An unfriendliness that may be accompanied by aggressive behavior. Many patients experience some hostility when ill, especially if confined to long periods of hospitalization.

Remember all behavior is learned and has a purpose. The behavior expressed by a patient may be the result of inner feelings of fear, stress, anger and hostility. Some ways that a nurse can assist the patient to deal with or overcome these feelings are:

1. Develop an attitude that will instill confidence and express caring.
2. Express humor appropriately to relieve tension and stress.
3. Insure the patient's privacy.
4. Allow and encourage the patient to verbalize feelings, negative and positive.

Stress, which is not coped with successfully, can manifest itself through physical symptoms and diseases such as:

1. Hypertension
2. Ulcers
3. Rheumatoid arthritis
4. Asthma
5. Hyperthyroidism
6. Heart disease

People experience a wide variety of emotions when they become patients and it is the responsibility of health-care providers to recognize and follow-through with appropriate actions to alleviate negative emotions. Well over a century ago, Florence Nightingale stated in her notes on nursing, "If you knew how unreasonably sick people suffer from unreasonable causes of distress, you would take more pains about all these things."

LEARNING ACTIVITIES - continued

Directions: Complete these questions on emotional reactions by reviewing the material you have read and writing your answers in the space provided. Be prepared to discuss your answers in a class discussion or role play different situations illustrating emotional reactions in patients.

1. List three common feelings experienced by many patients.

   a. ____

   b. ____

   c. ____

2. Describe four emotional reactions to illness.

   a. ____

   b. ____

   c. ____

   d. ____

3. When the nurse recognizes reactions to tension and stress, what is his/her responsibility?

   ____

   ____

   ____

   ____

4. Complete the following inventory exercise by reading the following directions.

   Doctors Holmes and Rahe of the University of Washington Medical School devised an inventory of life changes found to be important precursors of illness. A person's score on this scale has been an effective predictor of the onset of disease. Place a checkmark by events that have occured to you in the past year. Then add the score values of the events you have checked. Research indicates that a person with a score of less than 150 has a 37% probability of becoming ill within the next two years. A score of 150 or greater but less than 300 has a 51% chance of illness. A score greater than 300 indicates that a person's chances are eight out of ten that an illness will develop within the next year.

RANK	LIFE EVENT	VALUE
1.	Death of spouse	100
2.	Divorce	73
3.	Marital separation	65

LEARNING ACTIVITIES - continued

RANK	LIFE EVENT	VALUE
4.	Jail term	63
5.	Death of close family member	63
6.	Personal injury or illness	53
7.	Marriage	50
8.	Fired from job	47
9.	Marital reconciliation	45
10.	Retirement	45
11.	Change in health of family member	44
12.	Pregnancy	40
13.	Sex difficulties	39
14.	Gain of new family member	39
15.	Business readjustment	39
16.	Change in financial state	38
17.	Death of close friend	37
18.	Change to different line of work	36
19.	Change in number of arguments with spouse	35
20.	Mortgage over $10,000	31
21.	Foreclosure of mortgage or loan	30
22.	Change in responsibility at work	29
23.	Son or daughter leaving home	29
24.	Trouble with in-laws	29
25.	Outstanding personal achievement	28
26.	Wife/husband begins or stops work	26
27.	Begin or end school	26
28.	Change in living conditions	25
29.	Revision of personal habits	24
30.	Trouble with boss	23
31.	Change in work hours or conditions	20
32.	Change in residence	20
33.	Change in schools	20
34.	Change in recreation	19
35.	Change in church activities	19
36.	Change in social activities	18
37.	Mortgage or loan less than $10,000	17
38.	Change in sleeping habits	16
39.	Change in number of family get-togethers	15
40.	Change in eating habits	15
41.	Vacation	13
42.	Christmas	12
43.	Minor violations of the law	11

YOUR TOTAL SCORE ____________

Source: Woolfolk, Robert L. and Richardson, Frank C. Stress, Sanity and Survival, New York: Monarch Publishers, 1978.

5. **Directions:** From your experience and/or observations, name the stresses for the following age groups. Discuss your answers in class.

AGE GROUP **SOURCE OF STRESS**

1. Infancy ____

____

2. Childhood ____

____

3. Adolescence ____

____

4. Adulthood ____

____

5. Elderly ____

____

Directions: Stress may have environmental causes; name possible sources of stress in the environment.

ENVIRONMENT **SOURCE OF STRESS**

1. Home ____

____

2. School ____

____

3. Work ____

____

LEARNING ACTIVITIES - continued

ACTIVITY #6. Defense Mechanisms

Directions: Read the following.

People have different ways of coping with or handling conflicts, frustrations, anxiety, stress, fear, hostility and tension. These feelings are caused by some real or imagined threat. The manner in which people deal with these feelings is referred to as their coping behaviors or defense mechanisms. Defense mechanisms or coping behaviors are habitual and unconscious techniques used to reduce or avoid anxiety or the awareness of something unpleasant. They help us to deny or distort the real sources of anxiety and maintain an idealized self-image so that we can live with ourselves. Everyone has at one time or another used defense mechanisms. Defense mechanisms serve the purpose of protecting us from anxiety. People who overuse defense mechanisms are less adaptable because they use great amounts of energy to maintain an unrealistic self-image.

Read the following information to better understand defense mechanisms and their appropriate meanings.

1. Denial - Protecting oneself from an unpleasant reality by refusing to accept it. Denial is closely associated with death, illness, divorce and similar painful, threatening experiences.

   Example: A terminally ill patient who was told yesterday of his/her condition, today believes that the lab reports were mixed-up.

2. Repression - The most often used defense mechanism. Preventing painful or dangerous thoughts from entering consciousness.

   Examples: Unconsciously forgetting an upcoming painful dental appointment. Difficulty recalling shocking or traumatic events from childhood.

3. Reaction Formation - Preventing dangerous impulses from being expressed by exaggerating opposite behavior.

   Example: A middle-aged man who is threatened by repressed feelings of impotence makes a pass at every woman he meets and brags loudly of his sexual conquests.

4. Fantasy - Fulfilling frustrated desires in imaginary achievements. Daydreaming is a common form of fantasy.

   Example: Fantasy is valuable as an outlet for frustrated motives such as wanting to harm someone you are angry with. The substitution of the fantasy may prevent a disaster.

LEARNING ACTIVITIES - continued

5. Projection - Attributing one's own shortcomings to others; a person who is projecting unconsciously transfers his/her own shortcomings or unacceptable traits to others. By observing and exaggerating the unacceptable traits in others, the individual lessens his/her own failings.

   Example: An aggressive driver seems to notice nothing but aggressive drivers on the road or a dishonest college student is usually convinced that everyone else cheats too.

6. Rationalization - Justifying one's own behavior by giving reasonable and "rational" but false reasons for it. The making of excuses comes from a natural tendency to explain one's behavior. When explanations offered are reasonable and convincing but not the real reasons, a person is rationalizing.

   Example: "I flunked the test because my car broke down two days ago. I couldn't get to the library until yesterday and the books available didn't have the information I needed to study."

7. Compensation - Counteracting a real or imagined weakness by emphasizing desirable traits or by seeking to excell in other areas. This can be a positive defense mechanism. It is directed at overcoming deficiency.

   Example: A blind person may become an excellent musician.

8. Sublimation - Working off frustrated desires that are unacceptable in substitute activities that are constructive or socially acceptable.

   Example: A very aggressive person may find social acceptance as a professional soldier, boxer or football player. Freud believed that music, dance, poetry and other creative activities provided a way to rechannel sexual energies to socially acceptable behavior.

9. Conversion - Unconscious mechanism causing psychological conflicts to be expressed through physical symptoms with no organic basis.

   Example: A child who sees a pet killed by a car becomes blind after the event.

10. Displacement - Process in which a person transfers an emotion from the original source to another person or object because the individual feels unsafe in expressing feelings directly.

    Example: A person is angry at the boss because a raise was not received, then goes home and proceeds to yell at the family and throw things.

11. Dissociation or Isolation - Separating contradictory or opposite attitudes into logical, tight compartments.

    Example: "I can't stand hostile people. Every time I see a hostile person I get so angry I'd like to beat them up!"

LEARNING ACTIVITIES - continued

12. Identification - Process of attempting to make oneself like another. Children identify with their mothers and their fathers and thus learn those roles.

    Example: A young girl tries to be like her older sister who is popular and successful.

13. Undoing - An attempt to erase a prior act, thought or impulse. An act to undo the possible effect of an unrecognized impulse.

    Example: Compulsive handwashing after caring for a patient with whom the nurse has had a negative or unpleasant interaction.

14. Regression - Returning in a more-or-less symbolic fashion to a form of adjustment successfully used at an earlier stage. Going back to an earlier reality when present situations cannot be coped with.

    Example: A six-year-old child resorts to a two-year-old's temper tantrums to get attention after a new baby enters the family.

Many people use psychological defenses when they feel it is necessary to distort information to make it fit their preconceived self-images. The most frequently used defenses are largely unconscious, making them difficult to overcome. When people make an effort to be honest with themselves, they can often achieve greater self-acceptance and eliminate the need for defensiveness. A healthy personality results from the ability to be honest with others as well as with oneself. It is important to be able to let others know what you think, feel or want directly rather than use defenses that can increase your anxiety and stress.

Sources

Fantino, E.J. Ph.D., Fischer, Kurt Ph.D. et al. Understanding Psychology, Delmar Co., CA: DRM Books, 1974.

Mereness, D. and Taylor, C.M. Essentials of Psychiatric Nursing, St. Louis: C.V. Mosby Company, 1974.

Coon, Dennis. Introduction to Psychology, Los Angeles: West Publishing Company, 1977.

Directions: Complete the following exercise on defense mechanisms by reviewing the material you have read and writing or marking the correct answer in the space provided. Be prepared to discuss your answers in a class discussion or role play different defense mechanisms.

1. Fantasy is rarely related to frustrated desires. TRUE or FALSE

2. Compensation is usually a defense against feelings of ______________________.

3. Protecting oneself from unpleasant reality by refusing to perceive it is an example of ________________________ (what defense mechanism?).

LEARNING ACTIVITIES - continued

4. Describe some of the defenses you have recognized in yourself and others.

   Yourself:

   Others:

5. How can a person avoid the use of maladaptive defense mechanisms?

6. Below and on the next page are situations in which people are using defense mechanisms. Read each situation and write in the space provided the name of the defense mechanism described.

NURSE	PATIENT	DEFENSE MECHANISM
A nurse gives wrong medication to a patient. No time was taken to triple-check the name, dose and time. The nurse tells the supervisor, "Well, I am sorry but it cannot be all my fault. If we were not so busy all the time, things like this would not happen."	A woman patient who is in hospital for breast lump biopsy says, "I thought about coming in here sooner several times but I am so busy with my family and household and community activities. They take all of my time."	

LEARNING ACTIVITIES - continued

NURSE	PATIENT	DEFENSE MECHANISM
A nurse who is somewhat overweight and embarrassed about it never talks about her weight problem. However, when the nurse is in the cafeteria and sees a really overweight person, the nurse's response is, "Look at that. Isn't it a shame how some people who are really overweight don't try hard to get rid of it."	Mr. A has been a diabetic for five years but has never really adjusted to the fact. He has been in the hospital a couple of times a year - each time because he had gone off the prescribed diabetic diet or not taken the correct amount of insulin. Mr. A's roommate is a newly diagnosed diabetic who is very upset and cannot yet face the fact he has diabetes. Mr. A says, "My roommate should accept the fact. He is angry a lot and is so scared of giving himself a shot."	
A nurse has grown to like a patient very much. When the nurse sees the x-ray lab report of gastric cancer, he/she thinks the x-ray may have been mixed-up.	Ms. Z was told yesterday that she has advanced bone cancer. Today, she tells you that she thinks maybe the doctor was wrong in the diagnosis.	
A nurse is yelled at by a particularly stern doctor. When the doctor leaves, the nurse is angry and tries to forget it. Soon the nurse is roughly bawling out a nurse's aide for a small mistake.	Mr. Gomez is just being admitted to his room. He was treated rather coldly by a new clerk downstairs and this angered him. You come to orient him to his room and he snaps, "I asked for a private room. Why don't I get it? This room is too small and I wanted a bed near the window anyway."	

LEARNING ACTIVITIES - concluded

NURSE	PATIENT	DEFENSE MECHANISM
Miss Young, a nurse, likes children very much but just cannot get used to working on a pediatric's unit since she is rather shy. She feels uncomfortable talking to the children and the parents. Then she transfers to the nursery and becomes an excellent nurse in new-born care.	Mrs. C. is 54 and was an active golfer until a car accident caused permanent damage to her hip. She then learned to knit and crochet and now spends her time making beautiful articles.	

CONCEPTS OF MENTAL HEALTH

Module B - Mental Health and Mental Illness

RATIONALE

Mental health problems are more common than many people suspect. Mental illness is not a permanent or a clearly defined state of illness. When you complete this module you will recognize definitions of mental health and mental illness. You will recognize symptoms of mental illness and be able to classify and differentiate between different types of abnormal behavior.

PERFORMANCE OBJECTIVES

To the instructor's satisfaction, you will:

1. Identify characteristics of a mentally healthy person.
2. Identify characteristics of a mentally ill person.
3. In given situations, identify psychopathologies, personality disorders and psychosomatic illnesses.
4. Identify the symptoms for neurosis and psychosis.
5. Identify the classifications of mental illness and their characteristics.
6. Be able to assess your patient's emotional and psychological state and identify symptoms of mental health and mental illness when given an assignment in the clinical area.

LEARNING ACTIVITIES

Directions: The material needed to complete this module is included in this module, in the Trainex filmstrips #514, Stress, Tension, and the Relaxation Response, #354, Depression, and #355, Schizophrenia. Exercises are included to help you prepare for your post test. If you have any questions please see your instructor.

ACTIVITY #1. Mental Illness and Mental Health

Directions: Read the following.

Definitions of mental health are often determined by cultural rules or standards of "appropriate" behavior within a society at a particular point in time. For this discussion, judgments regarding mental health are determined by the standards set by the majority "anglo" population. Other groups will be discussed in Activity 4.

LEARNING ACTIVITIES - continued

Mentally healthy people demonstrate healthy behavior. Characteristics of mentally healthy individuals are:

1. Have self-respect and a firm belief in their individual self-worth
   - a. Able to laugh about themselves and do not overestimate nor underestimate their abilities
   - b. Willing to accept blame when they should and unwilling when they should not
   - c. Do not feel inferior or inadequate
   - d. Communicate emotions
2. Able to give and to receive love
   - a. Are capable of relating to others
   - b. Like and trust others and take for granted that others will like and trust them
   - c. Form close, lasting relationships with others of both sexes
   - d. Have an active and/or satisfactory sex life
   - e. Do not push people around and do not allow themselves to be pushed around
3. Have the ability to face reality
   - a. Aware of and accept their shortcomings
   - b. Acknowledge their limitations
   - c. Can delay immediate gratification for future satisfactions
   - d. Evaluate their mistakes and learn from them
   - e. Meet their own needs
4. Have the ability to find a purpose or realistic meaning in life
   - a. Identify some basic life goals
   - b. Put their best effort into what they are doing and get satisfaction out of doing it
   - c. Plan ahead and do not fear the future

LEARNING ACTIVITIES - continued

d. Make decisions and act on those decisions

e. Accept responsibility

f. Accept authority and are not afraid of authority

A mentally healthy person is "well adjusted" and reasonably worry-free and can handle the usual daily tensions and crises of living. These tensions and crises may be dealt with by an appropriate reaction of fear, anger, anxiety, distrust and depression.

A mentally ill person is "emotionally" disturbed and frequently severely worry-bound and tends to exaggerate inappropriately the same feelings of fear, anger, anxiety and depression. Mental illness can also be defined as the inability to behave in ways that create and maintain the well-being of an individual or any behavior that interferes with personal growth and self-fulfillment.

Several suggested causes of mental illness are:

1. Genetic Factors - Recent studies indicate there is convincing evidence that heredity plays a role in some forms of mental illness.

2. Organic Factors - A large number of patients suffer from symptoms of mental illness as a result of a physical illness, such as trauma and some infectious-disease and tissue-degeneration processes.

3. Psychogenic Factors (Self-Opinion - Self-Esteem) - When an individual must cope with situations that increase negative feelings about him/herself, anxiety can be forced to unbearable levels.

4. Environmental Factors (Social and Economic) - Experiences and communications, verbal and nonverbal, with members in a group, the family, the job, church, school, etc., may create situations producing tension and stress leading to maladaptive behavior.

5. Cultural Factors - Changing roles of men and women may cause feelings of confusion, insecurity and guilt that lower self-esteem. Minority groups that have different racial or religious beliefs face many situations that cause feelings of inadequacy and loss of personal security.

6. Methods of Meeting Stressful Situations - People learn methods of coping with change or meeting anxiety or stressful situations. The way a person copes with stress can relieve it, postpone it or complicate it.

Exercise

Directions: Place a checkmark next to those situations or behaviors that could be considered likely causes of mental illness. Check your answers by rereading the material.

1. _____ Parents have mental illness

2. _____ Poor environment

LEARNING ACTIVITIES - continued

3. _____ Able to communicate emotions
4. _____ Changing sex roles in society
5. _____ Ability to face reality
6. _____ Appropriate coping behaviors
7. _____ Unable to cope with stressful situations
8. _____ Acknowledges shortcomings and limitations
9. _____ Head trauma
10. _____ Poor self-esteem

ACTIVITY #2. Warning Signs of Mental Illness

Directions: Read the following.

1. Withdrawal from reality - Inability to accept responsibility, inappropriate behavior and indifference may be used in an attempt to avoid dealing with stressful situations.

2. Persistant depression - The individual may be tormented by a sense of insecurity and guilt and display a loss of interest in daily activities.

3. Tendency to excessively blame others for one's own failures and to be overly sensitive - A nurse, who loses her job after repeatedly giving wrong medications, blames the doctors' poor handwriting for her errors.

4. Prolonged anxiety - Continued severe feeling of worry or concern that something unpleasant is going to happen even though there is no apparent cause.

5. Inability to conform to social or legal standards - The individual is selfish, self-centered and unable to develop lasting and meaningful relationships. Other characteristics are poor judgment, lack of insight and inability to profit from punishment. The individual is unreliable and usually lacks sense of responsibility.

6. Physical complaint with no organic cause - Psychosomatic symptoms include tension that can induce headaches, nausea, insomnia, pains, etc.

7. Sudden changes in moods, behavior or performance - The individual behaves out of normal character.

If any of these symptoms are prolonged and severe, a professional opinion should be sought.

LEARNING ACTIVITIES - continued

Exercise

Directions: Complete the sentences below to indicate warning signs of mental illness. Check your answers by rereading the warning signs above.

1. ____________________ and ______________ may be used in an attempt to avoid dealing with stressful situations.

2. A loss of interest in daily activities may indicate persistant __________ __________.

3. In an attempt to build a sense of security, many individuals __________ ______________________.

4. Continued severe feelings of worry or concern that something unpleasant is going to happen may indicate ________________ anxiety.

5. Physical complaints with no ________________ causes may indicate mental illness.

ACTIVITY #3. Abnormal Behavior

Directions: Read the following and view the Trainex filmstrips #514, Stress, Tension and the Relaxation Response, #354, Depression, and #355, Schizophrenia.

Psychological problems are grouped into broad categories of maladaptive behavior. The most widely accepted system of classification lists four major types of problems, psychosomatic illness, neurosis, psychosis and personality disorders.

Definitions

1. Psychosomatic illness - Real illnesses that seem to have no physical basis but are thought to result from psychological causes (ulcers, asthma, high blood pressure, etc.).

2. Neurosis - A mild disorder in which high levels of anxiety (inappropriate fear) cause personal discomfort and the development of self-defeating and maladaptive behavior patterns. Hospitalization is rarely necessary and behaviors may be considered odd.

3. Psychosis - Most severe form of mental illness, often requires hospitalization. The person has lost contact with reality and can no longer distinguish between reality and fantasy. Behavior is often socially unacceptable.

4. Personality disorder - A maladaptive personality trait that dominates the individual. Alcoholism, drug addiction and sexually deviant behavior are common personality disorders. The person who has a personality disorder cannot or will not change his/her destructive behavior without assistance or intervention.

LEARNING ACTIVITIES - continued

Directions: Complete the following exercise by writing your answers in the space provided. Answers can be found by rereading the material.

Define terms according to the information in your module.

1. Psychosomatic illness - ______________________________

____

____

2. Neurosis - ______________________________

____

____

3. Psychosis - ______________________________

____

____

4. Personality disorder - ______________________________

____

____

Now let's take a look at each classification in more depth.

Psychosomatic Illness

Stresses that are not coped with successfully may be manifested through physical symptoms and diseases such as:

1. Hypertension

   One of the major causes of hypertension is stress and anxiety. For some years hypertension has been a major health problem of Black Americans. Recent studies have indicated that high blood pressure among many blacks is probably a direct result of the stressful and demoralizing conditions of ghetto life.

2. Heart Disease

   Studies have indicated that stress is a significant factor in the development of coronary disease.

3. Infections

   The body has defense mechanisms that act against harmful micro-organisms. Inflammation of the infected area and the body's specific immunity ability to identify and destroy foreign materials are examples. According to studies, people in unpleasant or stressful situations are prone to viruses and flus.

LEARNING ACTIVITIES - continued

4. Ulcers

   When a person responds to stress and anger, excessive amounts of stomach acids and enzymes are secreted. These substances, when present in an empty stomach for long periods, begin to digest the stomach lining, leading to ulcers.

   Some of the other long-term effects of stress and anxiety on the body are:

   Migraine headaches

   Backaches

   Asthma

   Constipation

   Acute dermatitis

   Menstrual pain

   Colitis

   Diarrhea

   Diabetes

   Arthritis

Neurosis

A neurosis is a mild emotional disturbance in which high levels of anxiety, exaggerated fears, tension, extreme shyness, or other sources of discomfort cause a person to seek relief by adopting rigid defense mechanisms and unusual or self-defeating behavior patterns. The anxiety reactions generally center about the vital organs of the body producing tightness of the stomach, fast-beating heart, loose bowels and a constant feeling of exhaustion. Because of these symptoms the individual feels frightened, unable to concentrate and depressed. The neurotic individual usually has insight into his/her behavior and has contact with reality. Examples of such behaviors are:

1. Anxiety reaction - Immediate external situations causing a temporary attack of apprehension, tachycardia (rapid heartbeat) and a feeling of loss of control.

2. Conversion reaction - Anxieties converted into physical symptoms such as deafness, blindness, inability to walk.

3. Phobic reaction - Irrational fears that persist even when no real danger is present. (example: claustrophobia - fear of closed spaces)

LEARNING ACTIVITIES - continued

4. Obsession - Undesirable but persistant thought forced into conscious awareness.

5. Compulsion - An unwanted urge to perform an act or a ritual contrary to person's ordinary standards.

Treatment of the Neurotic Patient

Many specific aspects of nursing care for neurotic patients will be ordered by the physician but there are some general suggestions that apply to all fearful, anxious, indecisive patients.

1. Provide a warm, friendly and sympathetic attitude.

2. Listen with an accepting attitude.

3. Provide outlets for anxieties such as therapy, physical activities, etc.

Directions: Complete the following exercise on neurosis. The answers can be found by rereading the material.

1. Define neurosis. ____________________

   ____

   ____

2. Match the correct term in the left column with the definitions in the right column.

a.	Compulsion	_____	1.	Anxiety converted to physical symptoms
b.	Phobia	_____	2.	Irrational fears
c.	Anxiety reaction	_____	3.	Unwanted urge to perform an act
d.	Obsession	_____	4.	Undesirable but persistent thought
e.	Conversion	_____	5.	Immediate response to stress

3. List three ways to deal with a fearful or anxious person.

   a. ____________________

   b. ____________________

   c. ____________________

LEARNING ACTIVITIES - continued

Psychosis

A severe psychological disorder in which the individual is unable to handle reality. It is the most serious human reaction to stress. Some examples are:

1. There is a presence of delusions (fixed false beliefs) such as:
    a. I am God.
    b. I have committed a crime or sin.
    c. My body is rotting away.
    d. I am being controlled by another person.
    e. "They" are out to get me.
2. There is also a presence of hallucinations such as: hearing voices, insects crawling on skin and changes of normal sensitivity to heat, cold, pain or touch.
3. Disturbed emotions. Individuals may have brief or prolonged episodes of elation, depression or apathy. These episodes, along with difficulties with thought, speech and memory, bring about a severe breakdown and loss of contact with reality. Psychotics usually do not have insight into their behavior.

There are two types of psychosis:

1. Organic Psychosis - This psychosis is caused by illness, poison, trauma, infection or the age process that results in a disturbance of memory, intelligence, orientation and judgment. This can occur at any age.

    Young children, chronic alcoholics and the elderly develop delirium (organic psychosis) very quickly in response to a high fever. Organic brain syndrome (brain cell atrophy), endocrine malfunction, nutritional and chemical disturbances, syphillis, arteriosclerosis, encephalitis, tumors, alcoholism, drug use also could result in organic psychosis.

    Treatment of organic psychosis is directed at the physical causes, such as treating infections, trauma, poisons, etc.

2. Functional Psychosis - No perceivable organic or physical pathology is present. This is a psychosis caused by unresolved anxiety.

    Causes of functional psychosis are:

    a. Hereditary factors - Certain individuals inherit a tendency to become mentally disturbed.

    b. Biochemical factors - Some psychologists believe that abnormal behavior is due to chemical imbalances and irregularities in the body.

LEARNING ACTIVITIES - continued

c. Conflict - Mental problems that involve confusion and conflict of communication are thought to have been caused by raising children with conflicting standards and extreme inconsistancy.

There are several types of functional psychosis behaviors. These are:

1. Depression - There are different degrees of depression:

   a. A normal depression includes:

      (1) Feelings of sadness

      (2) Disappointment

      (3) Dispair

      (4) Frustration

      (5) Unhappiness

      These feelings are experienced by everyone at one time or another. Grief or bereavement is a normal, appropriate sadness in response to a recognizable external loss. It is realistic and seldom serious.

   b. Mild depression is more severe and prolonged. The individual usually realizes that the response is excessive but does not recognize the underlying cause. Unresolved depression leads to a psychosis.

   c. Psychotic or major depression is so profound that the patient may lose contact with reality, have extreme feelings of worthlessness and become a suicidal risk. The individual may display feelings of elation, confusion, agitation, disorientation.

2. Paranoia - This psychosis is thought to have developed out of early childhood experiences in which excessive demands were made upon the individual to achieve. It is characterized by feelings of hatred, suspiciousness and insecurity. The person unrealisticly suspects hidden meanings and persecution and eventually loses contact with reality.

3. Involutional melancholia - A psychosis that develops slowly in the middle years of life. It is a depression that is characterized by spells of weeping, complaints of feeling pressure in the head and worrying excessively about minor matters. This psychosis occurs more often in women than men and suicidal impulsions are frequently present. This psychotic reaction is rarely diagnosed today but may be categorized as a major depressive disorder.

LEARNING ACTIVITIES - continued

4. Schizophrenia - These are a large group of disorders manifested by characteristic disturbances of language and communication, thought, perception, affect and behavior that last longer than six months. Thought disturbances may lead to misinterpretation of reality, misperceptions, withdrawal to escape reality and indifference. The four main primary symptoms are:

   a. Disturbance of association - disorganized speech and illogical thinking

   b. Disturbance of affect - inappropriate behavior

   c. Autism - withdrawal and preoccupation with ideas and fantasies that are illogical

   d. Ambivalence - exaggeration of opposite feelings or emotions for the same person, things, situation or goal

   The schizophrenic disorder in the more severe or advanced cases usually show secondary symptoms of:

   a. Delusions - fixed false beliefs

   b. Hallucinations - sensations or perceptions with no external cause

   c. Illusions - a perception that is a misrepresentation of reality

   There are four major classifications of schizophrenia:

   a. Simple - individual is withdrawn and shy - lacks emotional contact with others

   b. Hebephrenic - individual displays silly and inappropriate behavior

   c. Paranoid - individual has feelings of persecution

   d. Catatonic - individual is stuperous (poses in one position for long periods) or in a state of excitement (overactive and inappropriate behavior)

   The difference between neurosis and psychosis is very important to remember. One is the mild form of mental illness and the other is the more severe form. The important difference to remember involves the degree of contact with reality. The neurotic individual is in contact with reality - the psychotic is not.

Directions: In the space provided put N if sentence applies to neurosis and P if to psychosis.

_____ Severe form of mental illness

_____ Mild form of mental illness

_____ In touch with reality

_____ Loss of contact with reality

_____ Irrational fear

_____ Hallucinations and delusions

_____ Extreme feelings of worthlessness

_____ Usually aware of behavior

LEARNING ACTIVITIES - continued

Directions: Complete the following exercises by filling in the blanks. Check your answers by rereading the material.

1. Name the two types of psychosis.

   a. ____

   b. ____

2. Name two causes of organic psychosis.

   a. ____

   b. ____

3. Place a T or F for TRUE or FALSE in the space indicated for the following statements.

   _____ Endocrine malfunction may cause psychosis.

   _____ Schizophrenia is a type of neurosis.

   _____ Heredity is considered a possible cause of some forms of psychosis.

   _____ Organic psychosis may be a response to anxiety.

Personality Disorders

People with personality disorders have patterns of behavior that are neither psychotic nor neurotic. However, their behavior is maladaptive. Personality disorders include antisocial reactions, sexual deviations, abuse of alcohol, abuse of other drugs. The personality disorders are frequently long-standing and apparent in early childhood or adolescence. It is rare for people with these disorders to seek help on their own. In general, they tolerate stress poorly.

People with personality disorders appear friendly and likeable. They make friends easily and quickly but the friendships are usually short-lived. They tend to lack a conscience and often appear to have little concern for the welfare of others. They appear to use relationships to get what they want. They seldom appear to feel guilt and have few if any deep, close relationships. Because they have problems with relationships, they have few friends, have difficulty holding jobs and are impulsive and seek immediate gratification of their wants.

Factors that contribute to personality disorders:

1. Being rewarded when young for "acting out" behavior such as:
   a. Temper tantrums
   b. Hostile, aggressive behavior

LEARNING ACTIVITIES - continued

2. Being encouraged to be overly conforming and discouraged from being creative
3. Circumstances in which normal behavior is not allowed to develop, for example:
    a. Having a rigid, unreasonable parent who strongly refuses to accept any reasons for non-conformity
4. Identification with parents or other authority figures who have similar deviancies

Behaviors Associated with Personality Disorders

1. Paranoid - exhibits mistrust, jealousy, defensiveness
2. Schizoid (introverted) - self-absorbed, withdrawn
3. Schizotypal - oddities of thinking, perception, communication and behavior
4. Histrionic - threatrical behavior, overly reactive, insincere
5. Antisocial - without conscience or morals, violates other's rights
6. Narcissistic - extreme feelings of self-importance, need for constant admiration
7. Borderline - unstable in interpersonal relationships, behavior, mood, self-image
8. Avoidant - extremely sensitive to rejection, yearning for acceptance and affection
9. Dependent - lack of self-confidence, helplessness when alone
10. Compulsive - restricted ability to express warm emotions, preoccupation with rules, order, organization
11. Passive aggressive - inability to openly oppose demands made by others, instead resorts to "acting out" or aggressive behavior in some other area.

Treatment

The treatment of the personality disorder is very difficult because the person usually lacks motivation for change. When treatment is sought, it is usually at the insistence of another person (parent, spouse, friend, employer) or due to a slowly developing awareness of an unsatisfactory life style. Extensive psycho-analysis and individual therapy are often helpful. Group therapy also has value in some cases.

ACTIVITY #4. Mental Health and Illness for Different Ethnic Groups

Directions: Read the following.

There is a need in the health profession to develop an awareness that different cultures often have different values, beliefs and practices regarding health care. To develop this awareness, the nurse must constantly assess his/her own attitudes and judgments when nursing patients from different cultures.

LEARNING ACTIVITIES - continued

In order to meet the needs of patients of all ethnic and racial backgrounds, the following suggestions have been made.

1. Be aware of your own behavior, feelings and value system in relation to those of a different culture.
2. Judge a patient's behavior in context of his/her culture without labeling the person.
3. Recognize that because of their background some patients will consider the hospital a hostile environment. They may manifest coping and defense mechanisms to deal with the situation.
4. Be sensitive to cultural differences when working with your patients.
5. Be aware of ways that culture influences the health beliefs and health practices of your patients.

Remember: Neurosis and psychosis are viewed as a human's attempt to adapt to stresses in the environment. Paranoia, which is often a symptom of mental illness, serves to help some people from minority cultures screen input from health-care professionals in an attempt to avoid harm in an environment that often regards these patients with indifference. Many behaviors displayed by people from different cultures are directly related to their isolation from their own society and serve to maintain their physical and psychological integrity.

Although there is variation among different races and cultures, some groups have a high or low frequency for certain physiological and psychological conditions. For example:

American Indians:	Low frequency of ulcers and high incidences of suicide, dental caries, tuberculosis.
Asians:	Low incidence of leukemia, prostate cancer but a high incidence of gastrointestinal cancer
Blacks:	Low incidence of dental caries, skin cancer and CNS malformation, with high incidence of hypertension.
Hispanics:	Low frequency of cystoceles, prolapsed uteruses and a high incidence of hypertension and tuberculosis.

Many diseases and illnesses are distributed along ethnic and racial lines. Those listed above are only a few examples. It is not fully known whether differing frequencies of illness in different populations are a result of genetic (racial) factors or cultural influences or a combination of the two. For example, the high incidence of hypertension in black populations could result from stressful living conditions while their low incidence of skin cancer could result from the genetic makeup of the racial group.

LEARNING ACTIVITIES - concluded

When caring for any patient, but especially persons of different ethnic groups, remember the importance of an individual's need to adapt to stress and the environment.

Directions: Complete the following exercises on health and illness in different ethnic groups. Be prepared to discuss your answers in a class discussion. Check your answers by rereading the material.

1. There is a need in the health profession to develop an awareness of:

   ____

   ____

2. Many ____________________ displayed by people from different cultures are directly related to their isolation from society.

3. A high incidence of suicide can be found in what ethnic group?

   ____

4. What suggestions have been made to assist in meeting the needs of people from different and varying cultural backgrounds.

   a. ____

   ____

   ____

   b ____

   ____

   ____

   c. ____

   ____

   ____

   d. ____

   ____

   ____

CONCEPTS OF MENTAL HEALTH

Module C - Trends in Treatment of Mental Illness

RATIONALE

There are many different types of treatment and therapy for the mentally ill. The primary goal of all patients' treatment is to create a positive change in the life of the patient. When you have completed this module, you will be familiar with a variety of treatments for mental illness.

PERFORMANCE OBJECTIVES

To the instructor's satisfaction, you will:

1. Identify the functions and/or preparation of the psychotherapy team.
2. Identify different types of medical and psychological treatments for mental illness.
3. Recognize the classifications, side effects and common usage of the drugs used in treating mental illness.
4. Demonstrate your ability to communicate in a therapeutic manner with your patient when given an assignment in the clinical area.

LEARNING ACTIVITIES

Directions: All the material needed to complete this module is included in this module. Exercises are included to help you prepare for your post test. If you have any questions please see your instructor.

ACTIVITY #1. Present Trends in Care and Treatment

Directions: Read the following.

Today treatment of mental illness includes a wide range of medical, psychological and sociological procedures. In earlier times, psychological disturbances were thought to be some sort of moral or religious problem and "madmen" were often viewed as being possessed by devils and demons. Treatment consisted of religious ceremonies such as exorcism and physical punishment. Within the last two hundred years psychotherapy was developed. Psychotherapy's goal is to help people realize that they are responsible for their own problems and that they are the only ones who can solve the problems. The therapist's role is to help people examine their present way of living and how it causes problems and to assist them in redirecting their goals and living in more beneficial ways.

LEARNING ACTIVITIES - continued

Psychotherapy is practiced by a wide variety of people with different educational backgrounds and experiences. Familiarize yourself with the members of the psychotherapeutic team and their backgrounds.

1. Psychiatrist - A doctor of medicine (M.D.) with postgraduate training specializing in the treatment of mental illness.

2. Psychologist - Therapist with a Ph.D. degree. Psychologists study normal and abnormal behavior for three to four years, with a doctoral internship in psychotherapy and assessment for two years. They administer and evaluate special tests.

3. Psychoanalyst - Any member of the psychotherapeutic team who has taken special training in the theory of personality and techniques of psychotherapy.

4. Psychiatric counselor - Generally has a master's or doctor's degree in counseling psychology. The psychiatric counselor usually works in educational institutions for consultation about personal problems.

5. Psychiatric social worker - Person with a graduate degree in psychiatric social work. Psychiatric social workers usually have clinical training with two years of psychology courses.

6. Psychiatric nurse - An R.N. or L.P.N. who has received further psychiatric training beyond a basic nursing course or who has worked in a psychiatric setting for a long period of time.

7. Psychiatric technician - An individual who has received a college degree in any pertinent field (i.e. anthropology - sociology) and who has an interest in psychiatric therapy. Additional training is required but usually the psychiatric technician is skilled in group and individual therapy.

8. Rehabilitation Specialist

    a. Activities Therapist - Uses creative modalities when assessing and providing individual and group therapy.

    b. Occupational Therapist - O.T. may have graduate-level education or experience. Concerned with and trained to motivate people, teach self-care and independent living management.

    c. Recreation Therapist - Training includes college preparation in recreation and human services. Uses formal and informal games and planned social events to assist patients to be motivated. These activities assist in the patient's socialization.

    d. Rehabilitation Counselor - Graduate-level training. Rehabilitation counselors assist patients/clients to function independently. Their duties include helping patients to identify short and long-range goals to restore their ability to interact socially and physically. They also assist patients in establishing independent living and perhaps help them readjust occupations.

    e. Assistants or Aides - Usually identified as possessing outstanding skills such as learning quickly and working well with people. They reflect the attitudes of the entire team. The aide is an active, motived team member.

LEARNING ACTIVITIES - continued

ACTIVITY #2. Psychotherapy

Directions: Read the following.

Psychotherapy is talk therapy. It is a system composed of various theories and techniques, interventions and interpretations. Psychotherapy makes use of communication to the fullest and uses any methods available that best serve the interests of the patient. The goal of psychotherapy is to bring about insight, understanding and change within the patient. Psychotherapy can either be done on an individual basis or in groups and can be under the direction of any team member. The aim of the therapy is to help patients gain understanding and insight into their problems so that they can learn to deal with them more effectively. Psychotherapy can be used in conjunction with drug therapy, electroconvulsive shock (ECT) therapy, recreational therapy and occupational therapy. Frequently, a combination of two or more types of therapy will yield best results.

Skilled psychotherapy calls for the development of highly specialized techniques. The first step is to determine what method of therapy should be employed with a particular patient with a particular diagnosis. However, therapy is more frequently determined on the basis of behavior rather than diagnosis. Appropriate treatment is influenced by many factors: the patient's age, degree of intelligence, emotional maturity, educational background, culture (language, religion, family type, social pressures), economic status, duration of symptoms, etc.

There are three major approaches to psychotherapy.

1. Psychoanalysis - Psychoanalysis was developed by Sigmund Freud in the 1890's in an effort to recover the patient's earliest memories and feelings involving certain "traumatic experiences." Freud thought the conscious level represents a relatively small area of the mind. The unconscious, like a submerged part of an iceberg, is much larger. In this vast portion lie images, desires, feelings and ideas that have been "forgotten" or repressed. The repressed feelings may continue to influence our behavior, however, and we are often unaware of the real basis for our thoughts, beliefs and actions.

   Psychoanalysis is done by a psychiatrist or clinical psychologist. Freud developed techniques of free association and dream analysis as a basis for psychoanalysis. Both the psychiatrist and clinical psychologist attempt to unearth these repressed feelings through:

   a. History-taking

   b. Making use of free association

   c. Assisting the patient to be aware of context of free associations

   d. Focusing on shifts from I to You

   e. Assisting the patient to recall and examine his/her dreams, fantasies and daydreams

   f. Focusing on self-images vs. self-hate

LEARNING ACTIVITIES - continued

- g. Protective techniques
- h. Identifying covert behavior
- i. Identifying and assessing nonverbal behaviors
- j. Focusing on denials and projections
- k. Identifying repeated self-defeating behavior and assisting clients to delete old scripts and behaviors
- l. Focusing on and encouraging the development of one's assets and resources

2. Client-centered Therapy - A nondirective type of psychotherapy developed by Carl Rogers in which the therapist creates a non-threatening atmosphere of total acceptance, empathy and understanding so that the client will be free to explore all thoughts and feelings and to consequently discover and solve his/her own problems.

3. Behavior Therapy - A type of therapy based on principles of conditioning and learning. Behavior therapists attempt to change behavior rather than probe the unconscious or make changes in personality.

Group therapy is another popular form of psychoanalysis. It is advantageous because it uses one therapist and can help a large number of people. Group therapy gives troubled persons practical experience with one of their biggest problems - getting along with other people.

A psychiatrist, psychologist, psychiatric technician, or psychiatric nurse meets with a group of four to eight patients with similar problems. Members are encouraged to talk about their problems. The group itself is a very strong therapeutic force; each member forms a strong identification with the group that serves as a source of allegiance or belonging to the patient ("my group"). It is also an important introductory approach for the type of patient who finds it uncomfortable to be in a one-to-one relationship with the therapist.

There are many types of groups that work together or have generally shared problems. Some group therapy groups include:

1. Activity group
2. Conjoint counseling group for married couples
3. Family therapy, which is becoming very popular because of the influence of family relationships on illness. Family therapy increases the chances of returning the patient to an accepting family.
4. Drug-dependence and alcoholic's groups

LEARNING ACTIVITIES - continued

5. Youth groups dealing with adolescent problems or juvenile delinquency

6. Mixed groups

Psychodrama is another type of therapeutic group experience that is sometimes provided for patients. This is a form of therapy in which patients dramatize their emotional problems in group settings, usually on a stage. After the role playing is completed, the audience (usually others involved in therapy) is given the opportunity to participate in a discussion of the situation they have witnessed or experienced.

Although there is a great deal of argument about the effectiveness of psychotherapy and, for that matter, many other forms of therapy, it is probable that three things are necessary for an improvement in the patient's ability to cope with the stresses of life.

1. The patient must want to get better.

2. The patient must come to a better understanding of what is causing his/her problems and in turn learn methods or techniques for dealing more effectively with them.

3. An environment in which it is possible for change to take place must be provided.

The Therapist

The emotional make-up, flexibility and compassionate objectivity of the well-trained therapist are of great importance. Therapists must be aware of their own emotional responses to individual patients. They must examine their own feelings towards hostile, erotic or other deviant behavior. Can they handle rejection, silence or outbursts without taking such responses personally? The therapist's ability to handle his/her own emotional reactions in the face of the patient's demands is one of the most important parts of the therapeutic relationship and contributes greatly to a favorable outcome.

Directions: Complete the following exercises. Be prepared to discuss your answers in class. Answers can be found by rereading the material.

1. Which member of the psychotherapeutic team is an M.D.? ____________________

2. What is the therapist's role in psychotherapy? ______________________________

____

____

3. Name the three major approaches to psychotherapy.

   a. ____

   b. ____

   c. ____

LEARNING ACTIVITIES - continued

4. What is an advantage of group therapy? ______________________________

____

____

5. Circle the qualities necessary for a therapist to be effective.

   a. Flexible

   b. Expensive

   c. Objective

   d. Uncaring

   e. Able to handle rejection

   f. Judgmental

   g. Aware of own emotional responses

   h. Compassionate

ACTIVITY #3. Electroshock Therapy (EST) or Electroconvulsive Therapy (ECT)

__Directions:__ Read the following.

Shock therapy is a rather drastic medical treatment for depression. In the usual session of therapy about 150 volts of electrical current is passed through the brain for slightly less than a second. This shock induces a convulsion and causes the patient to lose consciousness for a short period of time. Muscle relaxants and sedative drugs are given before the shock treatment to soften its impact. Treatments are administered in a series of eight to twelve sessions spread over three to four weeks. Some loss of memory will occur during the period of the treatments but it usually will return within six months.

Why ECT works is not known but it does seem to help many depressed people. Over 80 percent of cases of severe depression treated with ECT show dramatic improvement. ECT is useful in treating severely suicidal persons and those who have not responded to drug therapy. ECT is considered a distasteful procedure by many professionals and not all professionals support its use. A disadvantage of ECT is the side effects it can produce, such as: respiratory arrest, dislocation of the jaw, episodes of confusion and periods of extreme excitement after the therapy.

LEARNING ACTIVITIES - continued

ACTIVITY #4. Psychosurgery

Directions: Read the following. Answers can be found by rereading the material.

Psychosurgery is the most extreme biological treatment because it involves surgical alteration of the brain. The most common psychosurgery is the "prefrontal lobotomy." In this procedure the frontal lobes of the brain are surgically disconnected from other areas of the brain to alter behavioral functions. A high rate of undesirable side effects, such as seizures, extreme lack of emotional response and stupor, accompany this surgery. Because psychosurgery is irreversible and damage to the brain is permanent, it is used in only the most extreme situations.

ACTIVITY #5. Exercise

Directions: Complete the following exercises. Place a T for TRUE and an F for FALSE next to the following phrases on ECT and psychosurgery. Answers can be found by rereading the material.

____ 1. ECT is the same as EST.

____ 2. There is some loss of memory after treatments.

____ 3. Muscle relaxants and sedatives are normally given before ECT treatments.

____ 4. ECT is helpful for organic brain syndrome.

____ 5. The role of ECT therapy in treatment is understood.

6. The most common psychosurgery performed is the ________________

7. Psychosurgery is ______________________ and damage to the brain is permanent.

ACTIVITY #6. Pschotherapeutic Drugs (also known as Chemotherapeutic Agents and Antipsychotics)

Directions: Read the following.

1. The major tranquilizers are known as antipsychotic agents and neuroleptics. They are used to control the symptoms of schizophrenia and other psychoses that involve agitation and withdrawal.

2. The antidepressants are used to aid depressed patients suffering from agitation and severe depression.

   Although these drugs do not cure psychotic patients, their ability to control symptoms of painful, crippling anxiety, fear, anger, paranoia, delusions and hallucinations makes it easier for patients to profit from other forms of therapy, such as psychotherapy. Drug therapy has also been an important factor in enabling patients to be treated in the community as outpatients. Antidepressants have reduced the need for electroshock therapy. Because of this, depressed patients can more easily be treated while living at home rather than having to be hospitalized or institutionalized.

LEARNING ACTIVITIES - continued

The therapeutic role of the nurse is to instruct the patient on the drug's uses and then observe and report their effects on the patient.

Familiarize yourself with the major psychotherapeutic drugs and the nursing implications of their use in the treatment of mental illness.

The most widely used antipsychotic agents are in the phenothiazine class. They are most commonly used for their abilities to influence major characteristics of psychosis, such as hallucinations, delusions and catatonic withdrawal. The phenothiazines produce a quieting and calming effect. There is not a euphoric feeling, so psychological dependence is rare. The drug also has an antiemetic effect to prevent vomiting. Because of their sedative effects, the phenothiazines are useful in treating patients with acute agitation, alcoholic delerium tremors, restlessness and confusion.

Tranquilizers - Major phenothiazines used as antipsychotic drugs are:

NAME	USUAL DOSE	USES/ACTIONS
Stelazine	15-20 mg. daily	Schizophrenia, helpful with apathy or withdrawal
Thorazine	30 mg. - 1 gm. daily	Psychosis, alcohol withdrawal, control of hiccups, agitation
Compazine	15-150 mg. daily	Schizophrenia, depression, senility, antiemetic

Look up in your PDR the nursing actions to each of these drugs and discuss them in class.

Miscellaneous Antipsychotic Agents

NAME	USUAL DOSE	USES/ACTIONS
Mellaril	20-20 mg. daily	Schizophrenia, treatment of hyperactivity and behavior problems
Haldol	2-8 mg. daily	Schizophrenia, manic depression, brain damage and mental retardation

LEARNING ACTIVITIES - continued

Many side effects can occur while patients are taking these medicines. The most common reactions are:

excessive depression
drowsiness
dizziness
lethargy
fatigue
constipation
dry mouth
postural hyptension
fainting
pseudoparkinsonism effects
muscle tremors
rigidity
spasms
extreme restlessness
seizures
drooling
mask-like facial expression

Antidepressents - These drugs are used mainly to treat moderate to severe depressions. There are two types of antidepressants: tricyclics and MAO inhibitors.

The tricyclics act on the CNS and are thought to increase levels of neurotransmitters (i.e. norepinephrine) at the synapse.

The tricyclic antidepressants have anticonvulsant, hypotensive and sedative effects. Therapeutic response usually takes several days or weeks to be fully established. Tricyclics are considered to be less toxic than MAO inhibitors.

Monoamine Oxidase Inhibitors or MAO

This group of drugs is chiefly used to elevate the mood of depressed patients. Because of their high toxicity levels, they are usually only prescribed when tricyclic compounds are ineffective. Their actions are unknown but are thought to increase norepinephrine in nerve impulses in the brain by inhibiting and interfering with the enzyme called monoamine oxidase that breaks down norephinephrine. It is also used in neuroses, psychoses, involutional melancholia and manic depression. Occasionally MAO's are used in the management of hypertension.

Common Antidepressants - Tricyclics

DRUG	DOSE	ACTION/USE
Nardil	15 mg. TID	Mood elevation
Marplan	10-20 mg. daily	Mood elevation

MAO drugs have several side effects. They take one to two weeks to affect behavior. MAO drugs, when interacting with foods containing tyramine, may result in a hypertensive crisis. Substances high in tyramine are cheeses, bananas, avocados, beer, wine and antihistamines.

Other reactions to MAO inhibitors are: hyperexcited stages, liver toxicity, anticholinergic effects, hypertension crisis causing severe headaches and intracranial bleeding, nausea and vomiting, chills, fever, photosensitivity, chest pains, heart arrythmias and neck stiffness.

Source: Rodman and Smith. Clinical Pharmacology Nursing, J.B. Lippincott Co., 1974.

LEARNING ACTIVITIES - continued

Minor Tranquilizers - Antianxiety Agents

These agents reduce anxiety and the muscle tension associated with anxiety.

DRUG	DOSE	ACTION/USE
Librium	5-25 mg. TID	To treat anxiety and acute withdrawal in alcoholism.
Valium	2-10 mg. QID	To treat anxiety and alcohol withdrawal, muscle relaxant.
Equanil (Meprobamate)	200-400 mg. TID or QID	For anxiety and insomnia, pre-op for ECT, and for chronic alcoholism and some seizures.
Vistaril and Atarax	25-100 mg. TID	Mild analgesic, antiemetic, antispasmodic.

Minor tranquilizers tend to be habit-forming but when given in small doses they are relatively safe with few side effects.

Side effects:

1. Rashes
2. Headaches
3. Chills
4. Poor muscle coordination
5. Fever
6. Inability to concentrate
7. Nausea
8. Dizziness
9. Vomiting

Following the termination of long-term use of minor tranquilizors, patients may experience several withdrawal symptoms varying from mild weakness, anxiety, muscle-twitching and insomnia to more severe symptoms of delerium and convulsions. Overdoses can result in central nervous system depression ranging from sleep to profound coma or even death.

LEARNING ACTIVITIES - continued

Drugs used in Electroconvulsive Therapy

DRUG	ACTION/USE
Atropine	Given to prevent aspiration during ECT.
Brevital	Short-acting barbiturate used to sedate patient prior to ECT treatment (Brevital).
Anectine	Rapid-acting myoneural blocking agent that briefly paralyzes the skeletal muscles to cause relaxation. Used to prevent muscular contractions during ECT and prevent fractures.

Remember to look up all medications you are administering to be familiar with side effects, nursing responsibilities and the amount of time the medication takes to affect behavior. There are many more psychotherapeutic drugs used today but those listed in the module are some of the common ones.

Directions: Complete the following exercise by filling in the blank spaces. Be prepared to discuss your answers in class. Answers can be found by rereading the materials.

1. Antidepressants are used to aid ____________________ patients suffering from agitation and manic depression.

2. The nurse can help the patient therapeutically by ____________________ the patient on the drug's uses and ____________________ and reporting the drug's ____________________.

3. Valium is a: (circle the letter in front of your answer)
   a. antipsychotic
   b. mood elevator
   c. phenothiazine
   d. minor tranquilizer

4. What are the most widely used antipsychotic agents? ____________________

____

____

LEARNING ACTIVITIES - continued

5. The most common reactions to drugs such as mellaril and haldol are:

____

____

____

6. MAO inhibitors are not used as frequently as the tricyclics for what reason?

____

____

____

7. What is the suspected action of MAO inhibitors in the body?

____

____

____

8. ______________ tend to be habit-forming.

ACTIVITY #7. Types of Facilities Available for Treatment

Directions: Read the following.

Since the mid 50s, the number of patients in hospitals for prolonged psychiatric care has been decreasing. This is due in great measure to the use of new drugs such as tranquilizers and antidepressants that help to control many of the symptoms of mental illness. Patients discharged from the hospital but relying on drugs to aid them in their adjustment to the outside have serious need for after-care treatment. Studies show that the availability of some type(s) of after-care help can make a favorable difference in readmission rates. The results have been pronounced when patients continue to use drugs, visit the psychiatric clinic as outpatients and receive psychotherapy and guidance.

The need for adequate after-care facilities is increased as more patients are discharged into the community. They must not be allowed to just exist or to stop taking their medication until their behavior again becomes sick and they are returned to the hospital. This situation represents the failure of an otherwise successful "community" effort.

Many communities have satisfactory after-care facilities to help patients adjust to their return to gainful, purposeful living. Facilities available are:

1. Private Psychiatrist - Names can be found in the yellow pages of the local telephone directory.

LEARNING ACTIVITIES - continued

2. Mental Health Clinic or Center - Important in after-care, offers diagnosis and treatment of mentally ill at community level. Handles day hospital and outpatient patients, provides group therapy, counseling, activities, occupational therapy and a trusted "place" the patient can return to if needed.

3. Psychiatric Hospital - Special inpatient hospital for treatment of the emotionally and mentally disturbed of various levels of severity. Can offer outpatient help such as group therapies.

   Types of psychiatric hospitals include:

   a. Private hospitals - provide inpatient psychiatric care.

   b. Veterans' hospitals - provide inpatient psychiatric care for the treatment of veterans of the armed services and their dependents.

   c. State hospitals - provide diagnosis, treatment and follow-up of inpatient care of the mentally ill with rehabilitation program.

4. Psychiatric Unit of General Hospital - May be organized and function in essentially the same way as a psychiatric hospital or may function the same as the rest of the hospital with privately-participating psychiatrists attending their patients.

   May offer some outpatient care for previous inpatients, at least for day-care attendance.

5. Halfway Houses - Offer patients an opportunity to adjust more gradually to an independent and responsible position in the community by providing a living environment and a "group" that the patient can return to after working during the day at a job in the community.

6. Small-group residences provide social rehabilitation before patients go out on their own.

7. Day hospitals - where patients go each day for help while living at home or in the community.

8. Rehabilitation centers

9. Sheltered workshops

10. Foster homes

11. Night hospitals - where patients return each evening after working in the community during the day.

LEARNING ACTIVITIES - concluded

Directions: Complete the following exercise.

1. Name three types of psychiatric facilities.

   a. ______________________________

   b. ______________________________

   c. ______________________________

CONCEPTS OF MENTAL HEALTH

Module D - Suicide and Death

RATIONALE

Suicide is a very disturbing and widely misunderstood mental health problem. You need to become familiar with the prevention and intervention of suicide. This module also will assist you in understanding the mechanisms of psychological adjustment to illness and death and provide you with examples of nursing interventions dealing with death and dying.

PERFORMANCE OBJECTIVES

To the instructor's satisfaction, you will:

1. Identify the stages of the grieving process.
2. Demonstrate knowledge on a written test and in the hospital of nursing interventions specific to grieving and dying persons.
3. Demonstrate a knowledge of persons with suicidal tendencies.
4. On a written test and in given situations demonstrate an understanding of nursing interventions specific to suicidal persons.

LEARNING ACTIVITIES

Directions: The material needed to complete this module is included in this module. Exercises are included to help you prepare for your post test. If you have any questions, please see your instructor.

ACTIVITY #1. Facts About Suicide

Directions: Read the following.

Suicide is defined as the act of voluntarily taking one's own life. Nearly everyone has had death wishes and suicide thoughts at some time in life. A combination of factors may lead a person to depression and preoccupation with death as "the answer" to suffering. Factors that may lead to suicide include loss of a loved one, job, money, health, beauty or independence, sexual or interpersonal problems, alcohol or job difficulties. Usually there is a break in communication with others that causes a person to feel isolated and misunderstood. His/her self-image becomes very negative and the person feels "worthless" and wants to die. People who attempt suicide are not necessarily "mentally ill." Anyone may temporarily reach a state of depression severe enough to attempt suicide. The most serious times of depression for the average person are times of divorce, separation, failure and bereavement. If these stressful situations are felt to be intolerable, a person may be motivated to at least temporarily desire the ultimate escape, suicide.

LEARNING ACTIVITIES - continued

Suicide is the tenth major cause of death in the United States representing 2,200 to 5,000 deaths annually. These figures may be even higher since different states record suicides by different methods.

In the state of Arizona, the suicide death rate is far above the national rate. In Arizona, suicide is the second major cause of death in adolescents.

Researchers have classified people who commit suicide into four general groups.

1. Those who view suicide as a means to a better life or as a way to save their reputations.
2. Those who are psychotic and commit suicide in response to delusions or hallucinations.
3. Those who commit suicide as revenge against a loved one.
4. Those who are elderly and/or terminally ill and use suicide as a release from pain.

Source: Rowe, C.J., M.D. An Outline of Psychiatry, Dubuque: William C. Brown Company Publishers, 1980.

Factors significant in suicide attempts are:

1. Sex - Three times as many men as women complete suicide but more women make the attempt. For white males ages 15-19 suicide is the second major cause of death.
2. Age - More than half of all suicides are commited by persons over 45 years old, but the rate is increasing for adolescents and young adults.
3. Income - Some professions, particularly medicine and psychiatry, show higher than average suicide rates. In general, suicide is neither higher or lower among the rich or the poor.
4. Marital status - Marriage (when successful) may be the best natural deterrent to suicidal impulses. Highest rates of suicide are found among the divorced, widowed and single.
5. Cultural influences - Suicide is less common in predominantly Catholic countries such as Ireland and suicide is more common in Japan, Germany, Denmark and Switzerland. Cultural attitudes toward suicide, death and afterlife seem to play a role in suicide statistics.

Being aware of these statistics and factors is necessary to prevent suicide. The nurse should be aware of and look for signs of suicidal tendencies in all patients. Listed below are danger signs of potential suicide.

1. History of previous suicide attempt or threat
2. Suicide note

LEARNING ACTIVITIES - continued

3. Chronic illness (especially attitude of illness)
4. Alcoholism or drug dependency
5. Advancing age, especially in men
6. Recent surgery or childbirth
7. Hypochondriasis
8. Feeling of being unaccepted
9. Psychosis with paranoia, panic or suspiciousness
10. Financial, marital or family problems

It is estimated that two-thirds of all suicide attempts are made by people who do not really want to die. Most people are relieved when someone responds to their cry for help and intervenes in the suicide attempt.

Suicide experts believe that the most important task in dealing with a suicidal person is to establish a rapport with that person.

As the nurse it is important for you to offer support, acceptance and legitimate caring for the suicidal person.

ACTIVITY #2. How to Help a Suicidal Person

Directions: Read the following.

Suicide experts suggest the following ways to deal with suicidal persons.

1. Accept the person and the idea of suicide itself. Hiding from suicide or trying to avoid talking about it makes the person feel wrong, unaccepted and alone. It is acceptable to ask direct questions such as:
    a. Have you thought of suicide?
    b. Have you already made preparations?
    c. Do you trust yourself?
2. Listening is of great value. Allow the person to express his/her true feelings without interfering with your own value judgments. Attempt to create hope, which can move a person away from suicidal preoccupation. Offer alternatives - not advise.
3. Be on the alert for episodes of good moods or elation after a severe depression. This could indicate that the person has made the decision to end it all and now anticipates the end of suffering.
4. Assess the person's self-esteem. Does he like himself? Attempt to find out what she likes about herself and stress her positive points.

LEARNING ACTIVITIES - continued

Remember that the potentially suicidal person will become actively suicidal if his/her intent is serious enough and if treatment is not received for the underlying problem. Your attitude as a nurse must be sincere, caring and nonjudgmental.

You as the nurse should be alert to the fact that suicide incidence is higher among:

1. the elderly
2. college students
3. urban blacks
4. Native Americans

The particular stresses influencing many members of these groups can bring about severe depressions and feelings of loneliness, guilt, anger and isolation. Effective communication may be enough to carry a person through a difficult time. There are over 200 centers for suicide prevention in the United States and many cities have mental health "crisis intervention" teams. If you hear threats or observe any warning signs of a potential suicide, immediate intervention is necessary. The majority of suicide attempts occur at a temporary low point in a person's life and may never be repeated again.

ACTIVITY #3. Exercise

Directions: Complete the following exercises on suicide. Your answers may be checked by rereading the material. Be prepared to discuss your answers in a class discussion.

1. What factors affect suicide rates?

   ____

   ____

2. Why do people try to kill themselves?

   ____

   ____

3. People who talk about or threaten suicide are rarely the ones who try it. TRUE OR FALSE (circle one)

4. What attitudes of the nurse are important when dealing with a potentially suicidal person?

   ____

   ____

LEARNING ACTIVITIES - continued

5. Place a T for TRUE and an F for FALSE in the space indicated for the following statements.

   ___ a. Anyone who would attempt suicide is mentally ill.

   ___ b. Suicide strikes more often among the poor.

   ___ c. A person who attempts suicide really wants to die.

   ___ d. There is nothing that can be done to prevent suicide.

   ___ e. Listening to and acceptance of a suicidal person is important.

   ___ f. A sudden improvement in mood after a suicidal depression means that the danger has passed.

   ___ g. Offering alternatives can create an atmosphere of hope in a suicidal person.

ACTIVITY #4. Self-Assessment on Grief, Death and Dying

Directions: Read the following.

Several concepts are essential to an understanding of the care of a dying or grieving person. Grief is defined as an emotional reaction associated with the loss of a life, a body part or a love object. Death is a strange and foreign experience to most people. The process of dying may occur over a period of time or suddenly. Impending death is accompanied by fear of the unknown and the natural instinct of all creatures is to cling to life. Therefore, it is particularly important for the nurse to understand his/her own feelings toward terminal illness, death and grief in order to help meet the needs of patients. Sometimes a member of the medical or nursing staff reacts to a dying patient as if his/her failure of skill or care is responsible for the impending death. The nurse who neglects to deal with his/her feelings concerning these issues may not be prepared to assist another person in dealing with grief, death and dying. Nurses, as people, react to death personally before they react to death professionally and this reaction influences care given to patients. Some questions are listed below for your reflection and class discussion.

Directions: Answer the following questions, then use the questions and answers in a class discussion with your instructor.

1. When was your first experience with death?

   ____

2. Did you ever talk to anyone about your feelings on death? If so, what were your feelings?

   ____

LEARNING ACTIVITIES - continued

3. Did anyone help you work through your grief after a death? If so, who was this person and how was he or she helpful?

   ____

4. Have you experienced the death of a patient? If so, what were your reactions and the reactions of the people around you?

   ____

5. In your opinion, what are the most unpleasant and difficult aspects of caring for a dying person?

   ____

ACTIVITY #5. Stages of Grief and Loss

Directions: Read the following.

Dr. Elizabeth Kubler-Ross, a thanatologist (one who studies death) and psychiatrist, has studied the terminally ill for more than five years. She has found that the dying person tends to go through a series of emotional stages in order to prepare for death. Not all terminally ill individuals experience all of these stages and the stages may not occur in the given order. Individual styles of dying vary greatly according to psychological maturity, religious beliefs, age, occupation, family attitudes, and not everyone reaches a state of acceptance when dying. The five basic stages are:

1. Denial and Isolation - The initial reaction to impending death is an attempt to deny its reality and to isolate oneself from all information that death is really going to occur. The person may believe that the x-ray or lab reports are mixed-up or that the physician is in error. The patient attempts to ignore or avoid any reminder of the situation.

2. Anger - In this stage the dying individual says "Why me?" As the individual faces the ultimate frustration of having everything he/she values stripped away, the person's anger spills into rage or envy toward those who will continue living. Even good friends may become enemies because of their health.

3. Bargaining - During this period the person bargains with himself or with his God. The person says "Just let me live a little longer and I'll do anything to earn it." Individuals may bargain for time by trying to be "good" (I'll never smoke again), by righting past wrongs or by praying that if they are granted more time, they will dedicate themselves to their religion.

4. Depression - As death draws nearer and the person begins to recognize that it cannot be prevented, feelings of hopelessness, exhaustion and deep depression set in. The person recognizes that he/she will be separated from friends, loved ones and the familiar routines of life and becomes profoundly sad.

LEARNING ACTIVITIES - continued

5. Acceptance - Assuming that death is not sudden, many people eventually reach a stage during which they calmly accept death. These people are neither happy nor sad but are at peace with themselves. This is usually a quiet time when the struggle with death has been resolved. The need to talk about death is ended and silent companionship is frequently all that is desired.

The awareness of these stages can help the dying individual and survivors to recognize and to cope with periods of depression, anger, denial and bargaining. It is also helpful to realize that close friends or relatives of the dying person may go through many of the same emotional stages before or after the person's death.

Source: Kubler-Ross, Elizabeth. Questions and Answers on Death and Dying, New York: MacMillan Publishing Co., Inc., 1979.

Most psychologists consider the emotional reactions of grief an essential part of adjustment to the loss of a friend or relative. If a person avoids the "grief work" by suppressing emotions, the person may later experience a much more severe and lasting depression. It is sometimes difficult to distinguish depression leading to psychosis and depression from the grief process. Refer to page 4 Activity #2 of Module B and review the warning signs of mental illness. If grief is overly severe or long lasting, it would be wise to seek professional help.

Directions: Complete the following exercises on the five stages of dying. Check your answers by rereading the material.

1. List the five stages of dying developed by Dr. E. Kubler-Ross.

   a. ______________________________

   b. ______________________________

   c. ______________________________

   d. ______________________________

   e. ______________________________

2. At what stage do you think a dying patient would request a lawyer to assist with making a will?

   ____

   ____

3. How can normal grief be distinguished from unhealthy depression?

   ____

   ____

LEARNING ACTIVITIES - continued

ACTIVITY #6. The Nurse's Role in the Process of Grief, Dying and Death

Directions: Read the following.

The nurse's role in the process of dying is an important one. The nurse can help a patient to feel a sense of worth and belonging and to maintain a sense of self-identity. Even when knowing that medical science can't prolong life, the patient continues to hope. Hope is an emotion accompanied by a feeling of anticipation or expectation and should be supported if realistic. The following guidelines will help the nurse to meet the needs of a dying person.

1. Maintain the patient's physical state by paying special attention to hygiene, nutrition, skin deterioration, elimination and respiratory status.
2. Assist in obtaining services of a clergyman if patient or family request it or express such a desire.
3. Comfort, support and encouragement are essential. Maintain the patient's self-esteem by:
    a. giving information about what is happening
    b. not avoiding patient's questions
    c. encouraging family visits
4. Help dying patients to grieve by:
    a. encouraging verbalization of fears, anger, sadness
    b. observing nonverbal behavior indicating anxiety
    c. allowing patients to talk about their lives and themselves
5. Help relieve pain: Physical changes caused by pain can be life-threatening to seriously ill patients. Keeping patients painfree can be accomplished by:
    a. giving medications on time
    b. monitoring patient's responses to medicines and planning treatments and activities around best responses to medicines
6. Maintain open channels to communication by:
    a. not saying anything around patients you do not want them to hear (do not whisper near the patient)
    b. allowing patients to make choices in activities and their care
    c. explaining all treatments to the patient and allowing him/her the opportunity to ask questions and to understand the need for treatments

LEARNING ACTIVITIES - continued

d. NEVER telling a patient that he or she is dying (this is the doctor's responsibility). This deprives the patient of a glimpse of hope that he/she may need. Acceptable alternatives are words like:

(1) "You are seriously ill."

(2) "We are doing everything we can to help you."

e. never abandoning patients or family members

f. offering information about who you are and what is happening

g. being available to listen

7. Control environment by:

a. providing a well-lighted, well-ventilated room

b. avoiding social and sensory deprivation (but keep in mind the possibility that the condition of the patient could distress roommates)

c. encouraging family to bring familiar objects

8. Assist in obtaining legal services for wills, organ donations and financial affairs.

Any nurse with warm feelings toward patients, ability to express belief in another human and sufficient interest to learn these simple steps can offer effective interventions to the grieving and dying person.

Directions: Complete the following exercises. Check your answers by rereading the material.

1. ______________________________ is an emotion accompanied by a feeling of anticipation or expectation.

2. List and describe three ways to maintain open and effective communication with a dying patient.

a. ____

____

b. ____

____

c. ____

____

LEARNING ACTIVITIES - concluded

3. Place a T for TRUE or an F for FALSE in the space indicated on the following statements.

    ____ a. A nurse must be capable of giving psychological and physical supportive care to the dying.

    ____ b. Nursing treatments should be planned around the nurse's schedule rather than the patient's tolerance.

    ____ c. It is your responsibility to tell a patient that he is dying.

    ____ d. Avoid talking about death with a dying patient, even if the patient expresses the wish to do so.

    ____ e. Good listening skills are essential in dealing with any person.

    ____ f. Whispering and low lights are suggested for the dying patient's room.

4. Role play given situations concerning death and dying.

unit 15

CONCEPTS OF MENTAL HEALTH

Module E - Drug Abuse

RATIONALE

Substance abuse generates one of America's biggest problems. Because substance abuse is so common, it is essential for the nurse to become familiar with its dangers and treatments.

PERFORMANCE OBJECTIVES

To the instructor's satisfaction, you will:

1. Recognize definitions and manifestations of substance abuse on a written test.
2. Demonstrate knowledge of the symptoms, diagnosis and treatments for substance abuse in given situations.
3. When given an assignment in the clinical area, demonstrate knowledge of assessing and caring for the patient abusing alcohol and/or drugs.
4. Demonstrate knowledge of ways to psychologically, emotionally and physically provide nursing care to a substance-abuse patient in given situations.

LEARNING ACTIVITIES

Directions: The material needed to complete this module is included in this module. Exercises are included to help you prepare for your post test. If you have any questions, please see your instructor. You will also need a directory of social resources for your community.

ACTIVITY #1. Definition and Facts about Alcohol Abuse

Directions: Read the following.

Alcoholism is defined as a disorder manifested by complete absorption with and the loss of control over consumption of alcohol leading to impaired emotional, physical, occupational and social adjustments. People are said to be alcoholics when their intake of alcoholic beverages is so great that it interferes severely with their work performance and their functioning as responsible citizens.

Alcoholism may take many forms and has many causes. For example:

One individual may be a chronic alcoholic - drinking excessively and incapacitated most of the time.

Another person may be referred to as a periodic or cyclic alcoholic - drinking excessively during certain periods but during other periods not drinking at all.

A third type of alcoholic is an individual who drinks large quantities of alcohol daily over a period of years.

LEARNING ACTIVITIES - continued

At first, the person may not seem to be seriously affected by this overindulgence, but slowly and insidiously, physical, mental and emotional deterioration occurs.

Directions: Read the following information.

Studies have indicated the following trends in alcoholism or alcohol problems in special groups.

1. Sex - There are five to six times as many male alcoholics as female alcoholics but females are developing heavier drinking patterns now than in the past. Changing life styles and added responsibilities are suspected as factors in the increasing rates of alcoholism in women.

2. Elderly persons - The elderly person is often plagued by feelings of worthlessness, emptiness and loneliness. In addition, deterioration of physical health, loss of family and friends, limited financial resources add to existing burdens. Alcohol is used to counteract these stresses and the new problems it causes often leads to alcoholism.

3. Ethnic groups

   a. Alcohol abuse is the major health and social problem among blacks in the United States. Black alcoholics tend to be younger than white alcoholics and the onset of alcoholism tends to occur earlier.

   b. The Indian Health Services considers alcoholism a high priority health problem that has reached epidemic proportions among American Indians and Alaskan natives. The overall alcoholism death rate for Americans Indians during the past few years is approximately 4.3 - 5.5 times greater than for any other racial group in the United States.

   c. Estimates of the rates of alcoholism based on alcohol-related physical disorders indicate a high rate of alcoholism among Hispanics. Fifty-two percent of all Mexican-Americans between the ages of 30-60 years of age autopsied at a medical center died of alcohol-related disease.

   d. Rates of alcoholism among Asians in general have been low. Asian cultural attitudes toward intoxicaton are negative and alcoholism is stigmatized.

4. Adolescents - Reports in the 1970's indicated an increase in the number of teenagers entering detoxification centers and attending Alcoholics Anonymous. Evidence indicates that youths may be affected more quickly by alcohol than adults because of differences in body weight and the more critical nutritional needs of adolescents during body growth and organ development.

5. Nurses - It has been estimated that 40,000 nurses in the United States are alcoholics. Lacking knowledge and feeling the stigma attached to alcoholism (especially in women), many nurses either ignore the problem in a co-worker or assign reasons other than drinking to the symptoms. It is essential that nurses learn the clues indicating a colleague may have a drinking problem and that they become competent in their ability to motivate the drinker into treatment long before alcoholism is advanced.

LEARNING ACTIVITIES - continued

ACTIVITY #2. Etiology of Alcoholism

Directions: Read the following.

Many theories about the causes and psychopathology of alcoholism have been offered but the causes are not really known. The universal use of alcohol implies that alcohol satisfies some deep-seated human need, and since alcohol is a central nervous system depressant, it is an effective tension reducer. Theories have been broken down into two categories.

1. pathophysiological

2. psychological

Pathophysiological Theory

It has long been recognized that alcoholism runs in families, but how much of this is a result of genetic factors is not certain. The more severe the parental alcoholism, the greater the likelihood of a child's becoming alcoholic. It has also been proposed that inherited traits may help ward off alcoholism by causing unusual distress when alcohol is ingested, possibly because of excess production during metabolism of a substance called acid aldehyde. At this point, the role of heredity in relation to alcoholism is unclear.

Psychological Theories

Most authorities believe that the chief causes of alcoholism are psychological. Certain findings are accepted by most authorities.

1. Transactional theory - Alcoholism is used as a style of interaction in which the individual and his/her family use drunkenness and helplessness as an excuse for responsibility-avoiding behavior. This theory also applies to persons without families.

2. Personality theory - Some of the personality traits that may be related to alcoholism are antisocial behavior, depression, heightened anxiety, low self-esteem, dependence, poor impulse control, low frustration tolerance and lack of power. The alcoholic person is viewed as needing to feel power that does not exist in reality and using alcohol for an initial uplift to permit fantasies of importance.

3. Social factors - Drinking is common in our society and total abstinence is rare. Advertising may play a role in the increasing rate of alcohol consumption leading to alcoholism.

4. Cultural factors - Persons of Italian and Jewish heritage traditionally have low rates of alcoholism probably because in those cultural groups alcohol consumption is usually only associated with meals. Parental attitudes about drinking may play an important role.

LEARNING ACTIVITIES - continued

ACTIVITY #3. Physical Aspects of Alcohol

Directions: Read the following.

Both short and long-term alcohol consumption affects almost every organ system in the body.

Alcohol is metabolized almost exclusively in the liver. The greater the blood alcohol concentration, the faster the metabolism occurs. During the process of metabolism, fatty acids are trapped and accumulate throughout the body, especially in the liver and muscles. Blood alcohol rises in relation to the amount of alcohol consumed per hour. Alcohol in the blood is transported to all tissues, but the most observable signs of intoxification are on the nervous system. Alcohol is absorbed from the stomach and upper part of the small intestine. It is more quickly absorbed from an empty stomach and when combined with carbonated beverages. Another factor influencing behavior after alcohol consumption is the amount of alcohol needed to produce the desired effects. The person who needs to consume more alcohol each drinking occasion to achieve a "high" has slowly increased his/her tolerance. Please review FIGURE A to observe amounts of alcohol ingested in relation to effects.

AMOUNT OF ALCOHOL INGESTED	PERCENT OF ALCOHOL IN BLOOD	EFFECTS OR SYMPTOMS
2 ounces of whiskey	0.05%	Appears normal.
4 ounces of whiskey	0.10% (common legal limit to drive motor vehicle)	Beginning symptoms - boastfullness, talkative, belligerent, lack of muscle coordination, slowed reaction time.
6 ounces of whiskey	0.15%	"Under the influence," decreased pain, vertigo, slurred speech, confusion, rapid pulse, staggering gait, diaphoresis.
8 ounces of whiskey 1/2 pint	0.20%	Acute intoxification, absense of muscular coordination, nausea/vomiting.
16 ounces of whiskey 1 pint	0.30-0.40%	Drowsiness/stupor leading to unconsciousness, absent reflexes, hypotension, cold and pale skin, slow respirations.
1 1/2 - 2 pints whiskey	0.50%	Death due to cardiac or respiratory arrest or aspiration pneumonitis.

FIGURE A

NOTE: Generally an ounce of whiskey, 5 oz. of wine, or a 12-ounce bottle of beer are about equivalent, 4 oz. of whiskey are about equal to 4 glasses of wine or 4 bottles of beer.

LEARNING ACTIVITIES - continued

Other physical effects of alcohol on the body are listed in FIGURE B.

Effects of Alcohol on the Body

1.	Gastrointestinal system:	Burns on mouth and throat, inflammation of GI tract causing bleeding and malabsorption, diarrhea.
2.	Mouth and throat:	Excessive alcohol use associated with a high incidence of general cancers but oral cancer in particular since most drinkers also smoke.
3.	Esophagus:	Esophagitis due to vomiting, esophageal varices due to defective blood flow through liver increasing the pressure in esophagus.
4.	Stomach:	Ulcers, gastritis, nausea, vomiting.
5.	Intestines:	Enteritis, malabsorption of essential nutrients causing nutritional deficiencies, colitis, hemorrhoids, bleeding.
6.	Liver:	Fatty liver, alcoholic hepatitis, cirrhosis, jaundice, blood-clotting disorders, hormonal disturbances, salt and fluid retention, hypertension, low serum protein levels, hepatic coma, death.
7.	Pancreas:	Acute pancreatitis, diabetes.
8.	Neurologic system:	Neurological toxicity, trauma resulting from lack of coordination, brain damage, memory blackouts, numbness, pain, muscle weakness and atrophy, organic brain syndrome.
9.	Sleep:	Restlessness, insomnia.
10.	Cardiovascular system:	Lessened cardiac output, shortness of breath, palpitations, increased heart size, atrial fibrillation, heart failure, affects myocardium.
11.	Respiratory system:	COPD, respiratory tract infections, pneumonia, tuberculosis, cancer.
12.	Genitourinary system:	A diuretic only as the blood level rises and stabilizes, as the level falls antidiuresis occurs causing fluid - retention, overhydration and dehydration, hypokalemia and hypomagnesia, decreased fertility, renal failure.
13.	Musculoskeletal system:	Ischemia, muscle pain, edema, fractures due to trauma.
14.	Integumentary system:	Skin lesions, pruritus, bruises due to decreased platelets, reddened, thick skin, acne, psoriasis, anemia.

FIGURE B

Source: Reilly, R.L., D.O. I'm an Alcoholic Because, Liguori, Missouri: Liguon Publications, 1978.

LEARNING ACTIVITIES - continued

Progression from "social drinking" to problem drinking is often subtle. Coleman, Hammen, and Jellinek in their book, Alcoholic Process, have listed steps in the development of a drinking problem.

1. Initial Phase - The social drinker begins to turn more frequently to alcohol to relieve tension and stress or to feel good. Danger signs are:
    a. Increasing consumption, preoccupation with drinking and beginning to worry about drinking habits.
    b. Morning drinking - particularly dangerous when used to combat a hangover or to "get through the day."
    c. Regretted behavior or extreme behavior while drunk leaving the individual feeling guilty or embarrassed.
    d. Blackouts - excessive drinking accompanied by inability to remember what happened during intoxication.
2. Crucial Phase - A crucial turning point comes as the person begins to lose control over his/her drinking. At this stage there is usually control over when and where the first drink is taken, but one drink starts a chain reaction to a second and a third and so on.
3. Chronic Phase - At this point the alcoholic drinks compulsively and continuously. The individual rarely eats and feels a powerful need for alcohol when deprived of it. The person's work, family ties and social life deteriorate. In this phase, the bottle comes before friends, relatives, employment and self-esteem. The individual has become an addict.

ACTIVITY #4. Denfense Mechanisms

Directions: Read the following.

The alcoholic's most frequently observed defense mechanisms are denial, projection and rationalization. Alcoholics use denial because they mirror society's belief that alcoholism is shameful and should not occur. They need to protect their self-concept and lessen feelings of guilt associated with drinking. Often alcoholics lack understanding of what is really happening to them. Alcoholics tend to be manipulative, depressed, lonely and suicidal.

Large numbers of alcoholics experience arrest and imprisonment, economic difficulties, absenteeism from work, poor job performance, traffic fatalities and family discord because of their alcohol consumption.

Drinking creates a situation in which it is easier for the individual to express feelings of rejection, dependency or sexuality. These expressions can lead to more guilt, which again makes it easier for the individual to drink.

LEARNING ACTIVITIES - continued

Many alcoholics use defenses such as:

"I can stop any time I want."
"I only drink beer or wine."
"I only drink on weekends."
"I only drink when I'm nervous."
"I only drink when I'm depressed."
"I never really get drunk". etc., etc.

ACTIVITY #5. Assessment and Treatment

Directions: Read the following.

A "YES" answer to any of the following questions suggests a strong likelihood that an individual is alcoholic and a "YES" answer to two or more questions increases the probability significantly.

1. Have you ever lost work or been late for work because you were drinking?
2. Do you and your spouse ever argue about whether you drink too much?
3. Do your friends consider you to be a heavy drinker?
4. Are you quiet and withdrawn but become the "life of the party" after a few drinks?
5. Have you ever felt sorry about your drinking behavior?
6. Do you need a drink at certain times during the day or do you usually drink throughout the day?
7. Do you often want a drink soon after waking in the morning?
8. Does drinking make it easier for you to get through the day?
9. Do you drink by yourself a good deal of the time?
10. Do you ever have difficulty recalling activities that occurred while you were drinking?
11. Do you feel better about yourself as a person when you are drinking?

Source: Reilly, R.L., D.O. America's Worst Drug Problem, Liquori, Missouri: Liquori Publication, 1974.

As a nurse you will see the alcoholic for two reasons. They are:

1. To treat medical complications (such as those listed in Activity #3, FIGURE B)
2. To detoxify the patient

LEARNING ACTIVITIES - continued

There is no perfect treatment for the patient withdrawing from alcohol but there are general rules to follow. Most of them are simple:

1. The patient should be treated with understanding, kindness and respect. Keeping in mind the patient is sick, express caring and sympathy.
2. Tranquilizers are useful in treating withdrawal but only on a short-term basis.
3. Depending on the nutritional state of the patient, vitamins can be generally helpful in fairly large quantities.
4. Adequate nutrition is essential.
5. Since the attitudes of the patient expressing a desire for help are important, the medical staff must respond to the needs of the patient without moralizing or degrading the patient.

Historically alcoholism has been viewed as a moral problem. The nurse's negative feelings about alcoholism may lead to subtle breaks in communication, hositility and other feelings interferring with the therapeutic relationship. Therefore, it is essential that the nurse review his/her attitudes about alcoholism and alcoholics.

Laboratory tests used to diagnose alcoholism are:

1. chest x-rays
2. CBC
3. glucose
4. serum cholesterol
5. electrolytes
6. SGOT, CKK, LDH serum levels
7. vitamin B_{12} concentration
8. urinalysis
9. stool for occult blood
10. blood alcohol level
11. EKG
12. prothrombin time

LEARNING ACTIVITIES - continued

Acute withdrawal may occur with no warning to problem drinkers, their families, friends and medical persons. Delirium tremens (shaking) may occur or problem drinkers may suffer from:

1. hallucinations
2. disorientation
3. psychomotor agitation
4. seizures

Other symptoms displayed by alcoholics are:

1. anxiety
2. irratability and agitation
3. shakiness or tremors
4. nausea and vomiting
5. dehydration or fluid retention
6. convulsions
7. slower motor response

Drugs used to assist the alcoholic with withdrawal and abstinance are:

1. valium
2. librium
3. antabuse
4. thorazine

Refer to the PDR (physicians' desk reference) regarding valium, librium and thorazine. It is the nurse's responsibility to be familiar with the classification, action, side affects and nursing responsibilities of all medicines administered.

Antabuse - Patients that are motivated to stop drinking by the help of a physician, nurse, friends or former alcoholics often tend to have a relapse at some point in the course of their recovery. This does not mean that they have failed and should stop trying to control their craving. If the patient really wants to stop drinking, the desire can be reinforced by taking a daily dose of antabuse (disulfiram). When a patient who has taken a dose of antabuse also takes an alcoholic drink, a reaction occurs. Within minutes the patient's skin turns bright red and warm due to vasodilation. The vasodilation effect also produces a severe headache, blood pressure drops, and the patient feels weak, dizzy and nauseated. Violent vomiting, heart palpitations, chest pains and diarrhea occur. Some cardiovascular complications have proven to be fatal

LEARNING ACTIVITIES - continued

to heart patients. Those patients who choose to take antabuse are relieved of the need to make countless decisions as to whether or not to take a drink each day. Patients taking antabuse must be cautioned to stop taking the medication 14 days before they intend to drink. A patient assessed as not being able to understand or follow directions should not be given antabuse. Many chronic alcoholics are able to drink and take antabuse.

The purposes of alcoholic treatment programs are:

1. To provide the person with knowledge of the effect of alcohol on the body.
2. To assist the person to learn to cope with daily stresses and problems.
3. To assist the person to realize that each of us is responsible for our own behavior.
4. To assist the person to desire and maintain sobriety.

In most communities many resources are available to the alcoholic person requesting help.

Alcoholics Anonymous: A lay organization that has contributed greatly to the rehabilitation of alcoholics. The concept of AA is that the alcoholic is unable to manage him or herself and needs to depend on group support to help control drinking. At an AA meeting alcoholics openly discuss their drinking. When the alcoholic feels the need to drink he/she can call AA members and receive support. Alcoholics are frequently admitted to a local facility for detoxification and then discharged to participate in AA groups and perhaps group psychotherapy. Sponsorship by another member often takes place.

THE TWELVE STEPS OF ALCOHOLICS ANONYMOUS

1. We admitted we were powerless over alcohol - that our lives had become unmanageable.
2. Came to believe that a Power greater than ourselves could restore us to sanity.
3. Made a decision to turn our will and our lives over to the care of God as we understood Him.
4. Made a searching and fearless moral inventory of ourselves.
5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.
6. Were entirely ready to have God remove all these defects of character.
7. Humbly asked Him to remove our shortcomings.
8. Made a list of all persons we had harmed, and became willing to make amends to them all.
9. Made direct amends to such people wherever possible, except when to do so would injure them or others.

LEARNING ACTIVITIES - continued

10. Continued to take personal inventory and when we were wrong, promptly admitted it.

11. Sought through prayer and meditation to improve our concious contact with God, as we understood Him, praying only for knowledge of His will for us and the power to carry that out.

12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.

Psychotherapy helps alcoholics to understand themselves and their problems. It helps them face that which they are trying to escape through alcohol. They must want to help themselves.

Al-Anon and Alateen were founded many years after AA. They separate the spouse and child from the alcoholic. These two groups help alleviate the pain the alcoholic causes his/her family. They emphasize coping skills that the spouse and children may use while dealing with the alcoholic family member.

Alateen is:

1. For those in the 12 to 20 age group who live in an alcoholic family situation.

2. An outgrowth of Al-Anon, the worldwide fellowship for relatives and friends of alcoholics.

Purpose of Alateen:

1. To discuss the difficulties teenagers face in response to the destructive role that alcohol plays in their family interactions.

2. To exchange experiences.

3. To encourage one another.

4. To help each other understand the principles of Alateen.

5. To learn effective ways to cope with problems.

Alateen members learn:

1. That compulsive drinking is a disease, therefore no one should condemn the alcoholic.

2. That the sick parent's loss of dignity should not be regarded with contempt but with compassion.

3. That some measure of emotional detachment must be acquired in order to cope with the situation.

4. That it is futile to try to force the addicted drinker into sobriety by reproaches, pleading or defiance.

LEARNING ACTIVITIES - continued

5. That it is stupid and self-defeating to resort to acts of reprisal or rebellion from which they alone will suffer the consequences.

6. That they are endowed with spiritual and intellectual resources with which to develop their own potentials, no matter what happens at home.

7. That their chief concern must be to build satisfying and rewarding life experiences for themselves.

Purposes of Al-Anon

1. To build the family member's own confidence and serenity, which in turn can help the alcoholic to want sobriety.

2. To improve attitudes so that the husband or wife can embrace sobriety with an easy mind; enjoyed sobriety is the kind that lasts!

3. To help the family member create a normal environment for the children, the most dependable defense against their becoming neurotic, delinquent or alcoholic.

4. To improve general health: physically by removing the causes of nervousness, mentally by conquering fear, worry and anxiety, and spiritually by providing the person with the means of gaining humility, peace of mind and a living faith.

ACTIVITY #6. Exercise

Directions: Complete the following exercises on alcoholism.

1. People are said to be alcoholics when their intake of alcoholic beverages is so great that it ________________________________ with their work performance and their functioning as responsible citizens.

2. Place a T for TRUE and an F for FALSE for the following statements in the space indicated.

    ____ a. Women outnumber men as alcoholics.

    ____ b. American Indians have an alcoholism rate 5.5 times higher than that of other racial or ethnic groups.

    ____ c. Nurses have a high incidence of alcoholism.

    ____ d. Family histories of alcoholism tend to give support to the theory of genetic factors causing alcoholism.

    ____ e. Alcohol is mainly metabolized in the brain.

    ____ f. In most states 0.50% of blood alcohol is the limit for operating a motor vehicle.

LEARNING ACTIVITIES - continued

____ g. An alcoholic's defense mechanisms tend to be denial, projection and rationalization.

____ h. The alcoholic patient needs a stern and stiff, goal-directed nurse.

3. From information in this module name two physical effects from alcohol on each part of the body.

A. GI System 1. ____________________
2. ____________________

B. Mouth and Throat 1. ____________________
2. ____________________

C. Esophagus 1. ____________________
2. ____________________

D. Stomach 1. ____________________
2. ____________________

E. Intestines 1. ____________________
2. ____________________

F. Liver 1. ____________________
2. ____________________

G. Pancreas 1. ____________________
2. ____________________

H. Neurologic System Cardiovascular 1. ____________________
2. ____________________

I. Respiratory 1. ____________________
2. ____________________

J. Genitourinary 1. ____________________
2. ____________________

LEARNING ACTIVITIES - continued

K. Musculoskeletal 1. ______________________

2. ______________________

L. Integumentary 1. ______________________

2. ______________________

4. Name the three stages developed by Coleman, Hammen and Jellinek on development of a drinking problem.

a. ______________________

b. ______________________

c. ______________________

5. You, as the nurse, will see the alcoholic patient in a health care setting for what reasons?

a. ______________________

b. ______________________

c. ______________________

6. It is essential that the nurse review his/her ______________________ about alcoholism and alcoholics.

7. Name five laboratory tests used to diagnose alcoholism.

TEST

a. ______________________

b. ______________________

c. ______________________

d. ______________________

e. ______________________

8. Name two symptoms of alcoholic withdrawal.

a. ______________________

b. ______________________

LEARNING ACTIVITIES - continued

9. What is the action of antabuse? ______________________________

____

____

10. What is the purpose of Alcoholics Anonymous? ____________________

____

____

ACTIVITY #7. Drug Abuse

Directions: Read the following.

Whether working in a hospital, industry or in a doctor's office, health workers may have contact with many patients who demonstrate symptoms of drug abuse.

If health workers are to be effective in caring for these patients, they must have some basic knowledge about the most commonly abused substances, their treatment and the resources that are available for help. Health workers need also to look at their own attitudes regarding "substance abusers" and to be certain that these attitudes do not interfere with their desire to help a patient.

Since the Civil War, an ever-increasing number of people have become habitual users of chemicals in an attempt to relieve some of the pressures of our complex society. Contrary to popular belief, the largest number of abusers are not "skid row" bums but may be businessmen, housewives, students or even your neighbor.

The following terms were partially developed by the World Health Organization (WHO) and are legally and medically accepted.

Drug:	Any chemical substance other than food that affects the body, structurally or functionally.
Substance Abuse:	Improper drug use or the use of any mind-changing substances that do not have any legitimate medical application.
Addiction:	Physical dependence upon a drug.
Habituation:	Psychological desire for a drug.
Drug Dependency:	Psychological and/or physical need for a drug with loss of the ability to control the use of the drug.
Tolerance:	A condition in which the body builds a resistance that necessitates continually larger amounts of a drug to obtain the same effect.

LEARNING ACTIVITIES - continued

Withdrawal:	Physiologic syndrome of nausea, vomiting, nervousness and convulsions resulting from discontinued use of a drug following prolonged use.

ACTIVITY #8. Commonly Used Slang Terms

Directions: Read the following terms you may encounter when working with substance abusers. You do not need to know these terms for your written test.

Acid Head:	A regular hallucinogen user
Around the turn:	Experienced with drugs
Bag:	A container of drugs (usually one ounce)
Bag man, bingle or big man:	Supplier of drugs
Bang:	An injection of a drug
Belongs:	On the habit
Belted, bending and bowing:	Under the influence
Bindle:	One package of opium derivation
Blasted:	Under the influence
Bummer:	A bad acid experience
Buzz:	Moderate euphoric reaction to drugs
Brick:	One kilo of marijuana
Burned out:	Sclerotic vessel
Chippy:	An occasional heroin user
Cop:	To obtain (usually drugs)
Clean:	An addict free from signs of drug use
Coming down:	Effect of the drug wearing off
Crashing:	Lethargy with amphetamine withdrawal
Cut:	To make drugs unpure
Dealer:	Supplier

LEARNING ACTIVITIES - continued

Dime bag:	$10 purchase of a drug
Drop:	Take orally
Dynamite:	Heroin and cocaine taken together
Feds or Narcs:	Federal narcotic agents
Fix:	Injection of a drug
Fuzz:	Law enforcement officer
Flash:	Euphoric reaction
Floating or Flying:	Under the influence
Goof ball:	Any barbiturate combined with an amphetamine
Hooked:	Addicted to a drug
Hype or Junkie:	An addict
Joy Pop:	Injection into the muscle rather than the vein, done irregularly
Kicking:	Withdrawal process
Lit Up or Loaded:	Under the influence of drugs
Monkey:	Drug habit with physical dependency
Mainliner:	Person who injects drugs intravenously
Reefer:	Marijuana cigarette
Roach:	Butt end of a marijuana cigarette
Rush:	Intense, orgasm-like, euphoric feeling immediately after injection
Reader with a tail:	Forged prescription
Score:	A purchase
Sewer:	Veins
Snort:	Inhale a drug
Stoned:	Under the influence of drugs

LEARNING ACTIVITIES - continued

Strung Out:	Addicted to drugs
Stuff:	General term for drugs or narcotics
Toke:	Drag (puff) from a marijuana cigarette
Tracks:	Scars from injecting into the veins
Turned on:	Under the influence of drugs (also called wasted)
Trip:	A psychedelic drug experience

ACTIVITY #9. Classifications of Abused Substances

Directions: Read the following. You do not have to know these drugs for your written test.

Over-the-counter drugs are drugs that can be bought without a prescription. They are frequently misused because they are legal, inexpensive, easily available and socially acceptable.

1. Classifications

   a. Sleepers

      (1) Sominex

      (2) Sleep-Eze

      (3) Compoz

      (4) Alva Tranquil

      (5) Dormin

   b. Cough syrups containing codeine or alcohol

      (1) Vicks

      (2) Trind

      (3) Pertussin night-time cold medicine

      (4) Nyquil

LEARNING ACTIVITIES - continued

c. Stimulants - all contain caffeine
    (1) Caffedrine
    (2) Vivarin
    (3) No-Doz
    (4) Come-Back
d. Antihistamines
    (1) Allerest
    (2) Bronchotab
    (3) Coryban-D
    (4) Ornade Spansules
    (5) Robitussin A-C
e. Nasal Decongestants
    (1) Asthma-Nephrin
    (2) Asthma Haler
    (3) Neo-Synephrine
f. Internal Analgesic
    (1) Pamprin
    (2) Cope
    (3) Emperin Compound
    (4) Excedrin
    (5) Vanquish
g. Motion-sickness pills
    (1) Dramamine
    (2) Bonine
    (3) Triptone

LEARNING ACTIVITIES - continued

2. Side effects of misuse include:
    - a. Increased general nervousness
    - b. Insomnia
    - c. Tremor
    - d. Cardiac Palpitation
    - e. Sweating
    - f. Urinary retention or frequency
    - g. Skin rashes

The effects of over-the-counter drugs when mixed with alcohol are increased. The effects of alcohol and antihistamines particularly can cause central nervous system depression.

Household chemicals are often used by drug abusers. They are also inexpensive and easily obtainable.

1. Abused chemicals include
    - a. Paint
    - b. Nail polish
    - c. Ether
    - d. Naptha
    - e. Acetone
    - f. Cleaning fluid
    - g. Lighter fluid
2. Methods employed
    - a. Sniffed (inhaled)
    - b. Chewed
    - c. Smoked
3. Risks of abuse
    - a. Liver damage
    - b. Kidney damage
    - c. Brain deterioration

LEARNING ACTIVITIES - continued

4. Side effects of misuse include:
    a. Intoxication
    b. Dizziness, light-headedness
    c. Slurred speech

Prescription, Illegal and Other Drugs

1. Central Nervous System Depressants
    a. Drug: Morphine Sulfate
        (1) Slang names: Monkey, Miss Emma, Hard Stuff, Morpha Tab, M, Dreamer.
        (2) Description: An opium derivative from the oriental poppy plant, used orally or by injection.
        (3) Medical uses: Relieves deep-seated pain, produces sleep.
        (4) Effects of abuse: Depresses respiration and heart action, hepatitis, physical dependency, psychological dependency, tolerance, collapsed veins, death from overdose.
        (5) Symptoms of use: Drowsiness, anxiety, euphoria, slurred speech, hallucinations, constricted pupils, depressed reflexes, loss of appetite, constipation.
        (6) Symptoms of withdrawal: Irritability, depression, panic, confusion, tremors, increased sweating, diarrhea, nausea and vomiting, abdominal cramps.
    b. Drug: Heroin
        (1) Slang names: Snow, Stuff, Horse, H, Dope, Shit, Skag, Hard Stuff.
        (2) Description: Same as morphine but a more powerful derivative, can be sniffed, manufactured in France, Italy and Mexico.
        (3) Medical uses: Illegal for medical use in the United States.
        (4) Effects of abuse: The same as morphine.
        (5) Symptoms of use: The same as morphine.
        (6) Symptoms of withdrawal: The same as morphine.

LEARNING ACTIVITIES - continued

c. Drug: Codeine

(1) Slang names: School boy.

(2) Description: Opium derivative taken orally or parenterally.

(3) Medical uses: Cough depressant, sedative, pain relief (only 1/6 as analgesic as morphine).

(4) Effects of abuse: Physical dependence, psychological dependence, tolerance, hepatitis, death from overdose.

(5) Symptoms of use: The same as morphine.

(6) Symptoms of withdrawal: The same as morphine.

d. Drug: Methadone-Adanon/Methadone (Dolophine)

(1) Slang names: Dollies, Dolls, Amidone.

(2) Description: Synthetic chemical.

(3) Medical uses: Potent analgesic, cough suppressant, used in withdrawal from heroin addiction.

(4) Effects of abuse: Respiratory depression, physical dependency, psychological dependency, tolerance.

(5) Symptoms of use: The same as morphine.

(6) Symptoms of withdrawal: Less violent than heroin.

e. Drug: Secobarbital Sodium (Seconal)

(1) Slang names: Reds, Red Devils, Red Birds.

(2) Description: Barbituric acid, white power in reddish-orange capsule or sometimes a pink capsule is used as a variation of seconal (slang name: Pink Ladies), fast-acting, taken orally.

(3) Medical uses: Preanesthetic medication to relieve anxiety, used to produce sleep and sedation.

(4) Effects of abuse: Death from overdose, respiration depression, death from withdrawal, convulsions, tolerance, physical dependency, psychological dependency.

(5) Symptoms of use: Intoxication, insomnia, belligerent depression, hallucinations, slurred speech, constricted pupils, impairment of coordination, sweating.

LEARNING ACTIVITIES - continued

(6) Symptoms of withdrawal: Irritability and restlessness, anxiety, hallucinations, tremor, convulsions, nausea and vomiting, insomnia. (Similar to alcoholic delirium tremors.)

f. Drug: Amobarbital Sodium (Amytal)

(1) Slang names: Blues, Blue Heaven, Blue Velvets

(2) Description: Barbituric acid, white tablet or light blue capsule, intermediate action, effects of 6-10 hour's duration. Administered: PO, IV, or I.M.

(3) Medical uses: Sedative, hypnotic.

(4) Effects of abuse: Same as seconal.

(5) Symptoms of use: Same as seconal.

(6) Symptoms of withdrawal: Same as seconal.

g. Drug: Sodium Pentobarbital (Hemabutal)

(1) Slang names: Yellow Jackets, Yellows.

(2) Description: Barbituric acid, yellow capsule, can be administered IV, intermediate onset and action.

(3) Medical uses: Sedative and hypnotic.

(4) Effects of abuse: Same as seconal.

(5) Symptoms of use: Same as seconal.

(6) Symptoms of withdrawal: Same as seconal.

h. Drug: Tuinal (Combination of Amobarbital-Secobarbital)

(1) Slang Names: Rainbows, Double Trouble.

(2) Description: Barbituric acid; half blue, half red capsule.

(3) Medical uses: Sedative and hypnotic.

(4) Effects of abuse: Same as seconal.

(5) Symptoms of use: Same as seconal.

(6) Symptoms of withdrawal: Same as seconal.

LEARNING ACTIVITIES - continued

2. Central Nervous System Stimulants

   a. Drug: Amphetamine Sulfates-Benzedrine, Dexedrine, Dexamyl, Preludin.

      (1) Slang names: Pep pills, Bennies, Wake-ups, Co-pilots, Roses, Peaches, Hearts, Dexies, Uppers, Footballs.

      (2) Description: Manufactured synthetic drugs, many shapes, colors and dosage preparations, can be administered PO or parenterally.

      (3) Medical use: Stimulates CNS; anorexia, can be used for mental depression and alcoholism.

      (4) Effects of abuse: Psychological dependency, tolerance, hepatitis, psychosis, death from overdose.

      (5) Symptoms of use: Excitation, irritability, anxiety, euphoria, hallucinations, panic, talkativeness, tremor, dilated pupils, unusually bright, shiny eyes, loss of appetite, insomnia.

      (6) Symptoms of withdrawal: None

   b. Drug: Methamphetamine Hydrochloride (Methedrine Dexoval)

      (1) Slang names: Meth, Speed, Splash, Criptoes.

      (2) Description: Synthetically manufactured, supplied in either capsules, tablets or powder.

      (3) Medical uses: CNS stimulant, used for depression, alcoholism, narcolepsy.

      (4) Effects of abuse: Hepatitis, psychosis, tolerance, death from overdose, psychological dependency, pulse rate may jump to over 200.

      (5) Symptoms of use: Loss of judgment, tremors, visual distortions, dilated pupils, loss of appetite.

      (6) Symptoms of withdrawal: None

   c. Drug: Caffeine. A mild CNS stimulant usually not considered an abused drug, but many people in our society develop withdrawal symptoms and symptoms of overdosing. It increases heart rate and respirations and dilates blood vessels. Found in coffee and in cola.

3. Hallucinogens

   a. Drug: Lysergic Acid Diethylamide (LSD)

      (1) Slang names: Acid, Cubes, The Chief, Sugar Lump, Sugar, Big D, 25, Zen, Heavenly Blue.

LEARNING ACTIVITIES - continued

(2) Description: Synthetic chemical, can be produced from ergot fungus or rye, is colorless, odorless and tasteless. Is florescent under ultraviolet light and is available in many forms.

(3) Medical uses: None

(4) Effects of abuse: Visual and auditory hallucinations, impairment of judgment, possible psychosis and adverse effects on unborn children, diminished ability to separate fact from fantasy, no direct deaths reported, psychological dependency.

(5) Symptoms of use: Unpredictable. Can include profound mental confusion, excitation, anxiety, depression, hallucinations, rambling speech, increased sweating, dilated pupils.

(6) Symptoms of withdrawal: Irritability, panic. Peak action is 30 minutes. Lasts up to 12 hours.

b. Drug: Peyote (active ingredient is mescaline)

(1) Slang names: Tops, P, Bad Seed, Big Chief, Mesc., Hikori, Seni, Wokowi.

(2) Description: Small cactus that grows in the southwestern part of the United States and Mexico. Drug is obtained by chewing small tops of plants or by brewing them into a tea. Bitter taste.

(3) Medical uses: Used in religious ceremonies by American and Mexican Indians.

(4) Effects of abuse: Vision and hearing can become distorted, Hepatitis, tolerance, psychological dependency.

(5) Symptoms of use: Hallucinations, tremors, vomiting (immediately after ingestion), irritability and restlessness.

(6) Symptoms of withdrawal: None

c. Drug: Psilocybin

(1) Slang names: Mushrooms, Sacred Mushrooms.

(2) Description: Central and South American mushroom.

(3) Medical uses: Occasionally used ceremonially by some Mexican Indians.

(4) Effects of abuse: Same as peyote.

(5) Symptoms of use: Same as peyote.

(6) Symptoms of withdrawal: None

LEARNING ACTIVITIES - continued

d. Drug: Diethyltriptamine (DMT)

   (1) Slang names: Businessman's Trip, 45-Minute Special.

   (2) Description: Coal tar derivative, injected, taken orally or smoked with tobacco or marijuana.

   (3) Medical uses: None

   (4) Effects of Abuse: Hepatitis, psychological dependency.

   (5) Symptoms of use: Excitation and hyperactivity, hallucinations, anxiety, depression, rambling speech, irrational behavior.

   (6) Symptoms of withdrawal: Effects last only about 45 minutes.

e. Drug: STP

   (1) Slang names: DOM, Peace.

   (2) Description: Synthetic chemical, taken orally or injected.

   (3) Medical uses: None

   (4) Affects of abuse: Hepatitis, psychological dependency, injury due to irrational behavior.

   (5) Symptoms of use: Hallucinations, euphoria, depression, dilated pupils, rambling speech, distortion of space and of time.

   (6) Symptoms of withdrawal: Effects of long duration (2 days).

f. Drug: Phencyclidine (PC)

   (1) Slang names: PCP, Peace Pill, Angel Dust.

   (2) Description: Synthetic, taken orally or injected.

   (3) Medical uses: None

   (4) Effects of abuse: Tolerance, unconsciousness, hepatitis.

   (5) Symptoms of use: Drowsiness, anxiety, panic, confusion, laughter, impaired coordination.

   (6) Symptoms of withdrawal: None

g. Drug: Cannabis sativa (Marijuana)

   (1) Slang names: Mary Jane, Sticks, Reefers, Joint, Weed, Pot, Smoke, Hemp, Grass, Sativa.

LEARNING ACTIVITIES - continued

(2) Descriptions: Dried leaves and stems of female hemp plant, (resin in powdered form also used, called hashish or "hash", more potent than marijuana). May be smoked, eaten, brewed into a tea.

(3) Medical uses: Experimentation occurring in medical and veterinary sciences.

(4) Effects of abuse: Tolerance, research ongoing.

(5) Symptoms of use: Inflamed eyes, increased respirations, initially stimulated. Secondary effects of depression, impairment of coordination, increased appetite, euphoria, drowsiness, hallucinations, impairment of decision-making ability.

(6) Symptoms of withdrawal: None

ACTIVITY #10. Nursing Assessment and Intervention

Directions: Read the following.

Nursing Assessment

Nursing assessment for overall substance abuse includes being aware of what drug has been used and in knowing what action to take. The nurse should observe behavioral and physical changes.

1. Behavioral changes
    a. Level of awareness
    b. Distortions in mood
    c. Distortions in thought patterns
2. Physical changes: (Addicts are generally undernourished because they often lack money to buy food with and they experience a decrease in appetite.)
    a. Level of consciousness
    b. Vital signs
    c. Pupil dilation or constriction
    d. Muscle tension and tremors
    e. Gastric distress
    f. Temperature (especially with amphetamines)

LEARNING ACTIVITIES - continued

Nursing Interventions

1. Hallucinogens are drugs that cause "acid trips" lasting from 8-25 hours. Intervention should include:
    a. Constant supervision and attention
    b. Providing a quiet atmosphere
    c. "Talking down" by:
        (1) Allowing patient to express feelings and perceptions
        (2) Providing orientation to time and to place
        (3) Utilizing diversion to refocus attention on something pleasant when frightening sensations or images appear.
    d. Thorazine or Valium when extreme fear and agitation is present. These can cause respiratory or circulatory depression.
2. Amphetamines are drugs that cause a "high" feeling or euphoria and the effects may last from 6-12 hours. Intervention should include:
    a. Reducing environmental stimuli
    b. "Talking down" with or without Thorazine
    c. Fever reduction before death can occur from dehydration and convulsion
3. Morphine derivatives, alcohol and barbiturates cause a central nervous system depression. Since they are depressants, they are the most life threatening. Overdoses occur most often with morphine derivatives and barbiturates. Nursing intervention should include:
    a. Oxygen administration
    b. Infusion of IV fluids
    c. Diuretic medications
    d. Hemodialysis with artificial kidney

Drug Therapies

1. Megimide (antidote for barbiturate intoxication)
    a. 50 mg. dose every 3 to 5 minutes - IV
    b. Given until return of muscle tone and pharyngeal and laryngeal reflexes return
    c. Useful in terminating barbiturate anesthesia

LEARNING ACTIVITIES - concluded

2. Methadone (for morphine and heroin addiction)
    a. Supresses withdrawal symptoms
    b. Considered a narcotic by the Federal Bureau of Narcotics and is therefore not legal for sale
    c. Used as a substitute for heroin, but can be addictive. Advantages of methadone addiction in place of heroin addiction are:
        (1) Less expensive
        (2) Does not create inability to function as heroin does, person can hold a job.

Sources of Help

1. Most communities have social-resource directories or crisis lines where people can call for assistance.
2. In a class discussion, talk about the various social service agencies in your community where a person can be sent for help with substance abuse. Use your United Way Directory of Social Resources to assist you.

TERMINOLOGY

The following is a list of terms and their definitions. These are the terms you should recognize and understand to successfully complete Unit 15 of the Health Occupations Program. Study and learn their meanings.

ACCEPTANCE:	Fifth or last stage in coping with death. The patient is neither angry nor depressed. At this stage, the patient is almost without feelings. Communication is more nonverbal than verbal.
ACTING OUT:	Individual's open display of emotion, usually disturbing.
ADDICTION:	Physical dependence upon a drug.
AFFECT:	Mood or feeling.
AFTERCARE FACILITY:	A facility that provides some type of care to a mentally disturbed patient after his/her discharge from a hospital. Example: halfway house, foster house, day care.
ALCOHOLICS ANONYMOUS:	An organization whose members are recovering and former chronic alcoholics who are interested in helping others with similar problems.
ALCOHOLISM:	A disorder manifested by complete absorption with and the loss of control over consumption of alcohol leading to impaired emotional, physical, occupational and social adjustments.
AMBIVALENCE:	Having two different emotions, attitudes, ideas or wishes toward a certain object, situation or person.
ANGER:	Second stage in coping with death. The patient has feelings of anger, rage, envy or resentment.
ANXIETY:	A somewhat prolonged feeling of vague uneasiness, worry or dread. A reaction to an often unidentified danger.
APATHY:	Lack of feelings or emotions.
ATARACTIC:	A tranquilizer.
BARGAINING:	Third stage in coping with death. For example, the patient may bargain with God by offering to dedicate his/her life to the church if he/she could be cured.

TERMINOLOGY - continued

CATATONIC:	A phase of schizophrenia in which the patient is unresponsive. Tends to assume and remain in a fixed posture, refuses to move or talk, is in a stupor.
CHEMOTHERAPY:	Therapy through the use of drugs.
CHRONIC BRAIN SYNDROME (C.B.S.):	A permanent change in mental functioning due to injury or destruction of brain tissue. Memory and intellectual functioning are impaired. Can be caused by infections, arteriosclerosis, alcoholism, injury, poor nutrition and syphillis. Orientation to persons, places and time is impaired.
COMPENSATION:	The unconscious effort to make up for real or imagined deficiencies. Turning a handicap into an asset.
COMPULSION:	An act done to get rid of the fear connected with an obsession (see obsession). A person's subconscious mind makes him/her feel it is necessary to perform the act. Failure to perform the act causes discomfort.
CONFLICT:	Occurs when a person has two different goals or ideas. The desire to do both may result in anxiety, helplessness, anger or indecision.
CONTINUUM:	A scale with numerous degrees representing distance or steps between two ideas (like health and illness). A person can move back and forth on a continuum all of his/her life.
CONVERSION:	Unconscious mechanism by which psychological conflicts are expressed through physical symptoms. No organic basis for physical symptoms displayed.
COVERT:	Covered, concealed, disguised. Cannot be directly observed, not obvious, have to guess at meaning.
DELUSION:	A false belief (i.e. I am God; I am Napoleon).
DENIAL:	Unconscious refusial to accept the existence of intolerable facts or situations.
DENIAL:	First stage toward the acceptance of death in which the patient refuses to admit he/she is dying and denies the illness.
DEPERSONALIZATION:	Feelings of unreality or strangeness about the environment, self or both. Unaware of own existence.
DEPRESSION:	Fourth stage in coping with death when the patient can no longer deny the terminal illness and feels a sense of loss.

TERMINOLOGY - continued

DEPRESSION:	A mental state characterized by dejection, lack of hope and absence of cheerfulness. There can be varying degrees of depression.
DETOXIFY:	To remove the toxic quality of a substance.
DISORIENTATION:	Breakdown in understanding time, place or personal relationships.
DISORGANIZATION:	First stage in the denial of illness. The individual's thoughts are not organized. The patient appears confused and usually has increased anxiety.
DISPLACEMENT:	Process in which an emotion is transferred from the original source to another person or object when the indiviual feels it is unsafe to express feelings directly.
DISSOCIATION:	Separation or "isolation" of mental processes in such a way that they become split off from the main personality or lose their normal thought-affect relationships.
DRUG:	Any chemical substance other than food that affects the body, structurally or functionally.
DRUG DEPENDENCY:	Psychological and/or physical need for a drug combined with loss of the ability to control the use of the drug.
ECT or EST:	Electroconvulsive therapy or electroshock therapy.
EGO:	One part of personality, according to Freud. The part of self in closest touch with reality that acts as a go-between from the Id to the environment. Learns to postpone immediate gratification for later gratification.
ENVIRONMENT:	Surroundings, both physical and emotional.
FANTASY:	Creative device for providing escape from reality.
FRUSTRATION:	Results when our needs are not met; when we are blocked from fulfilling a goal or wish.
FUNCTIONAL PSYCHOSIS:	Psychosis not caused by a physical (organic) reason.
GRIEF:	A series of emotional responses that follow the realization or the anticipation of a loss of one or more valued or significant objects. This series of emotional responses may include feelings of helplessness, loneliness, hopelessness, sadness, guilt or anger.

TERMINOLOGY - continued

GRIEFWORK PROCESS:	A term used for mourning.
GROUP THERAPY:	A type of psychotherapy in which a group of people get together with a therapist and share problems, feelings and gain group support.
HABITUATION:	Psychological desire for a drug.
HALFWAY HOUSE:	A small group residence to provide social rehabilitation. It provides transition from hospital and group support. The patient often works in the community but resides here at night.
HALLUCINATION:	A perception not resulting from an actual stimulus; has no relation to reality. Can be visual, auditory or olfactory (i.e. seeing a fire when none is there).
ID:	One part of personality, according to Freud. The part in which driving forces seek immediate gratification without regard to time, place or circumstance.
IDENTIFICATION:	Pattern of adjustment in which a person tries to be like another admired person. Individual will take on the thoughts, mannerisms, ways of dressing and acting of the other person.
ILLUSION:	A wrong interpretation of a stimulus (i.e. seeing a candle and imagining a large fire).
NARCISSISM:	Self-love.
NEUROSIS (NEUROTIC):	Mild form of mental illness in which the person is in conflict with reality but usually aware of his/her behavior but does not know why he/she is doing it. Individual has unreasonable fear, excessive tension and anxieties.
OBSESSION:	An uncontrollable desire to dwell on an idea or an emotion or to perform a specific act.
ORGANIC PSYCHOSIS:	Psychosis caused by a physical or organic condition (tumor, arteriosclerosis, toxins).
PARANOID:	A form of mental illness in which the person has false beliefs of persecution (people are "after" him/her). Person is sensitive, suspicious, jealous, brooding, very self-conscious, etc.

TERMINOLOGY - continued

PHOBIA:	An abnormal fear (i.e. claustrophobia - an abnormal fear of closed-in places).
PROJECTION:	A pattern of adjustment in which an individual pushes his/her own impulses or faults into his/her unconscious and then projects them to others; sees them in others. Not admitting one's own faults but seeing the same faults in others.
PSYCHIATRIST:	An M.D. who has postgraduate training in mental and emotional disorders.
PSYCHOANALYSIS:	Method of psychotherapy in which the psychiatrist has long interviews with the patient in order to discover feelings and memories (often repressed) that may influence the patient's behavior.
PSYCHODRAMA:	A form of therapy in which the patient tries to express feelings or ideas by acting them out.
PSYCHOLOGIST:	One who specializes in psychology, the study of both normal and abnormal behavior. Usually holds a Ph.D.
PSYCHOSIS (PSYCHOTIC):	A more severe form of mental illness. The contact with reality is severely disturbed, often absent.
PSYCHOSOMATIC:	Pertaining to the mind and body. Indicating illness in which some portion of the disease is related to emotional factors.
PSYCHOTHERAPY:	Methods of treating or curing psychological disorders. Therapy for the mind.
RATIONALIZATION:	Pattern of adjustment in which an individual makes excuses instead of realizing or facing the real reason.
REACTION-FORMATION:	Mechanism in which expressed attitudes and behavior are opposite those of the individual's repressed feelings.
REGRESS:	To move in a backward direction.
REPRESS:	To keep down, put down, keep under control. Rejecting something from consciousness; keeping it unconscious.
SCHIZOPHRENIA:	A form of mental illness in which the individual's contact with reality is severely disturbed. He/she is withdrawn and can have bizarre thoughts, hallucinations and delusions.
SIGNIFICANT PERSON:	Someone who has played a large, important or significant role in your life. Someone who influenced you somehow.

TERMINOLOGY - concluded

STRESS:	Strain or intense force over a period of time (produces a defense reaction).
SUBLIMATION:	Turning consciously unacceptable desires into personally and socially acceptable channels. Redirecting one's energies. Substitution of socially unacceptable behavior with socially acceptable behavior.
SUBSTANCE ABUSE:	Improper drug use or the use of any mind-changing substance that does not have any legitimate medical application.
SUICIDE:	The act of taking one's own life voluntarily.
SUPEREGO:	A part of personality, according to Freud. The part of personality that is concerned with right or wrong, the conscience.
TENSION:	State of mental or emotional strain. The tight reaction when we feel threatened.
TERMINAL:	The completion or end, such as a terminal illness resulting in death.
THERAPEUTIC RELATIONSHIP:	A relationship with someone that is beneficial to a patient's recovery.
TOLERANCE:	A condition in which the body needs continually larger amounts of a drug to obtain the same effect because the body has built up a resistance.
UNDOING:	An attempt to erase a prior act, thought or impulse. A symbolic act often serves as a sort of magic ritual in which an individual undoes or annuls the possible effect of his/her unrecognized impulses.
WITHDRAWAL:	Physiologic syndrome of nausea, vomiting, nervousness and convulsions as a result of discontinuing use of a drug following prolonged use.

POST TEST

Modules A, B, C

Directions: Read each question and its lettered answers. When you have decided which answer is correct, circle the letter on the answer sheet. DO NOT WRITE ON THIS TEST.

1. The ego part of personality functions under the:

    a. pleasure principle
    b. reality principle
    c. judgmental process
    d. guilt principle

2. The superego shows itself in:

    a. feelings like self-critcism, self-restraint and duty
    b. striving for gratification of pleasure
    c. ways to reduce tension
    d. keeping in touch with reality

3. The ID part of personality is concerned mainly with:

    a. behavior
    b. feelings
    c. drives
    d. guilt

4. A healthy personality exists when an individual feels self-worth and can make reasonable demands on and deal honestly with others. The three parts to an individual's personality are the parent, the adult and the child. These views on transactional analysis were developed by:

    a. Fritz Perls
    b. Carl Jung
    c. Eric Berne
    d. Alfred Adler

5. Which list expresses, in order, the hierarchy of basic human needs as developed by Mastow?

    a. Love, self-respect, safety, physiological self-actualization
    b. Safety, love, self-respect, self-actualization, physiological needs
    c. Physiological needs, safety, love, self-respect, self-actualization
    d. Self-actualization, physiological needs, safety, self-esteem, love

POST TEST - continued

For the next three questions, match the definitions on the right with the appropriate terms on the left by putting the correct letter on your answer sheet.

6. Mild anxiety ____	A. Inability to focus on what is really happening.
7. Moderate anxiety ____	B. Ability to focus on most of what is happening.
8. Severe anxiety ____	C. Limited ability to focus on what is really happening.

9. An emotional reaction creating strain or tension that occurs most often in circumstances requiring prolonged efforts to adjust to a situation. This is known as:

   a. anger.
   b. fear.
   c. hostility.
   d. stress.

10. The result of being blocked or prevented from reaching a goal or need or from fulfilling a wish is called:

    a. self-esteem.
    b. self-actualization.
    c. guilt.
    d. frustration.

11. The manner in which a person deals with feelings of conflict, frustration, anxiety, stress, hostility and tension could be referred to as:

    a. coping behavior.
    b. defense mechanisms.
    c. both are correct.
    d. none are correct.

12. Identify the method not appropriate in assisting patients to deal with or overcome feelings of fear, anxiety and stress.

    a. Maintain patient's privacy at all times.
    b. Offer advise in relation to the circumstances.
    c. Allow and encourage patient to verbalize feelings.
    d. Express humor appropriately.

13. A defense mechanism that would be considered positive and would not necessarily interfere with a realistic self-image would be:

    a. denial.
    b. conversion.
    c. compensation.
    d. dissociation.
    e. none of the above.

POST TEST - continued

14. "I did poorly on that test because the teacher really didn't like me" is an example of what defense mechanism?

    a. rationalization
    b. conversion
    c. sublimation
    d. compensation
    e. displacement

15. The process by which an individual attempts to make oneself like another is:

    a. projection.
    b. isolation.
    c. sublimation.
    d. identification.

16. Psychological coping behaviors and defense mechanisms are used when we need:

    a. to deal effectively with anxiety.
    b. to distort our own self-image.
    c. to be conscious of our behavior.
    d. all of the above.

17. Mentally healthy persons generally:

    a. feel inferior and inadequate.
    b. are unable to face reality.
    c. are able to accept responsibility.
    d. are unable to communicate emotions.

Match the definitions on the right with the appropriate term on the left by marking the correct letter on your answer sheet only. (Questions 18-22)

18. Phobia ____
19. Compulsion ____
20. Obsession ____
21. Conversion ____
22. Anxiety reaction ____

a. Anxiety converted to physical symptoms.
b. Irrational fears.
c. Immediate response to stress.
d. Undesirable but persistant thought.
e. Unwanted urge to perform an act.

23. Organic psychosis may be caused by:

    a. high fever.
    b. poison.
    c. trauma.
    d. tumors.
    e. all of the above.

POST TEST - continued

24. The hebephrenic schizophrenic patient usually displays what type of behavior?

    a. episodes of stupor or over-activity
    b. silly and inappropriate behavior
    c. shy and withdrawn behavior
    d. displays feelings of persecution

25. Which member of the psychotherapeutic team is an MD?

    a. psychologist
    b. psychiatrist
    c. psychoanalyst
    d. rehabilitation specialist

26. The treatment of mental illness includes a wide range of approaches. Choose the approach that is not used in treatment of mental illness.

    a. psychotherapy
    b. chemotherapy
    c. EST or ECT
    d. psychosurgery
    e. psychrometology

27. Stelazine is used as a/an:

    a. cathartic.
    b. anticonvulsant.
    c. antipsychotic.
    d. antihypertensive.
    e. antiemetic.

28. MAO inhibitors are believed to be effective by their:

    a. reaction in the pancreas with insulin.
    b. management of pain.
    c. interference with the breakdown of norepinephrine.
    d. actions on the eighth cranial nerve.

29. Minor tranquilizers:

    a. neutralize gastric acid secretions.
    b. reduce the blood's ability to clot.
    c. reduce anxiety.
    d. have anti-inflammatory properties.

30. The most common type of therapy used in treatment of schizophrenia is:

    a. electroconvulsive therapy.
    b. hydrotherapy.
    c. insulin therapy.
    d. chemotherapy and psychotherapy.

POST TEST - continued

31. Mr. Jones verbalizes extreme fear of a treatment he is to receive for the first time. The best supportive response would be:

    a. "If you ask, the doctor will be glad to explain the treatment."
    b. "You shouldn't be afraid, every precaution is taken during the procedure."
    c. "I know you are apprehensive, Mr. Jones. Let's talk about it."
    d. "The doctor wouldn't order the treatment if it were harmful, so just trust your doctor."

32. Explosive behavior over an apparently trivial event may be an example of a defense mechanism known as:

    a. conversion.
    b. displacement.
    c. sublimation.
    d. suppression.

33. Mr. Jackson pointed to the blank wall and stated, "Those demons have been dancing up there all night, please make them stop!" This symptom is:

    a. a hallucination.
    b. an obsession.
    c. an illusion.
    d. a delusion.

34. A patient whose mental conflicts are expressed through physical symptoms exhibits a psychoneurotic reaction known as:

    a. phobic reaction.
    b. depressive reaction.
    c. conversion reaction.
    d. anxiety reaction.

35. What would be a primary goal of nursing care for a withdrawn patient?

    a. To build the patient's trust in the physician.
    b. To encourage physical exercise.
    c. To encourage the patient to have pride in personal appearance.
    d. To stimulate the patient's interest in reality again.

36. Very often the depressed patient refuses food. The best explanation for this action is the patient:

    a. desires attention.
    b. feels "too good" to eat hospital-prepared food.
    c. feels unworthy of food.
    d. is too busy to eat.

37. The behavior of the patient with a neurosis is characterized mainly by:

    a. complete withdrawal from reality.
    b. apprehensions, fears and worries.
    c. confusion and hallucinations.
    d. impaired judgment and lack of insight.

POST TEST - continued

38. The behavior of the patient with a schizophrenic reaction is characterized mainly by:

    a. alternating moods of depression and elation.
    b. constant physical complaints.
    c. retreat from reality.
    d. mental retardation.

39. Valium is a/an:

    a. antipsychotic.
    b. mood elevator.
    c. phenothiazine.
    d. minor tranquilizer.

40. The most common reaction to drugs such as mellaril and haldol are:

    a. hypertension.
    b. hyperactivity.
    c. pseudoparkinsonism.
    d. diarrhea.

41. ECT is used to:

    a. treat organic brain syndrome.
    b. torture an individual.
    c. assist the patient to understand the seriousness of illness.
    d. affect a person's patterns of behavior.

42. Many behaviors displayed by people from different cultures are directly related to their isolation from their own society and serve to maintain physical and psychological integrity.

    a. true
    b. false

43. The elderly patient in room 200 has become agitated. The physician's order reads 75 mg. valium IM Q 4-6 hr prn agitation or apprehension. Your action would be to:

    a. administer medicine in buttock at 90° angle for agitation.
    b. call physician to clarify dose.
    c. refuse to administer medication and chart reason.
    d. administer medicine and observe patient carefully.

44. Mr. P, an adult who does not get his way, would be demonstrating regression if he:

    a. stamped his feet and pouted.
    b. went home and yelled at his wife.
    c. denied that there was ever a disagreement.
    d. accused the other person of being unreasonable.

POST TEST - concluded

45. Maslow believes that a self-actualized person could easily work at developing personal growth needs while also trying to satisfy basic physiological needs.

    a. true
    b. false

46. When mental disturbance is so severe that the individual can no longer function in society, that individual is said to be:

    a. neurotic.
    b. psychotic.
    c. hysterical.
    d. all are correct.

47. The difference between psychosis and neurosis is that the psychotic still attempts to cope with reality.

    a. true
    b. false

48. A person leaving an institution can make a gradual reentry into society by joining a/an:

    a. halfway house.
    b. encounter group for alcoholics.
    c. sports club.
    d. computer dating club.

49. While you are working the 11-7 shift, Mrs. Y, a patient, approaches you at 0300 hr and demands that the doctor be notified immediately for her request for a pass or leave of absence. Which should be your first response?

    a. "Okay, go back to your room and I'll call your doctor immediately."
    b. "You are just being difficult. You know I cannot do that."
    c. "Your request is unreasonable and I will not call. You can ask your doctor in the morning."
    d. "You must be very upset to want a pass immediately."

50. Some ways to begin the process of self-actualization are to:

    a. be willing to change.
    b. experience life honestly and directly.
    c. examine your motives.
    d. make use of positive experiences.
    e. all are correct.

ANSWERS TO POST TEST

Modules A, B, C

1. b
2. a
3. c
4. c
5. c
6. b
7. c
8. a
9. d
10. d
11. c
12. b
13. c
14. a
15. d
16. b
17. c
18. b
19. e
20. d
21. a
22. c
23. e
24. b
25. b
26. e
27. c
28. c
29. c
30. d
31. c
32. b
33. a
34. c
35. d
36. c
37. b
38. c
39. d
40. c
41. d
42. a
43. b
44. a
45. b
46. b
47. b
48. a
49. d
50. e

POST TEST

Modules D and E

Directions: Read each question and its lettered answers. When you have decided which answer is correct, circle the letter on the answer sheet. DO NOT WRITE ON THIS TEST.

1. Suicide is more common in lower socioeconomic groups.

   a. true
   b. false

2. Joan Smith is a 32-year-old patient with a diagnosis of drug overdose. The physician suspects a suicide attempt was made with the drugs. As you are assisting Joan with her am care, she remarks, "I'd be better off dead. Then I wouldn't have to put up with everything." You respond:

   1. "Don't talk like that, you shouldn't feel that way."
   2. "The weather has been very nice lately."
   3. "Why do you feel this way?"
   4. "Is that why you tried to kill yourself?"
   5. "Do you think these feelings could pass if you were given help?"

   Which response(s) should be used?

   a. all are correct
   b. 2
   c. 3, 5
   d. 1, 2, 4

3. Lois, a 45-year-old women with inoperable cancer of the colon, tells you about a friend who had cancer of the colon two years ago. "But you know," she says. "She's leading a perfectly normal life today." What might her comment indicate?

   a. She is maintaining hope.
   b. She may be denying the possiblity of death.
   c. She may be testing your reaction.
   d. All are correct.
   e. None is correct.

4. Suicide incidence is lower among the:

   a. elderly.
   b. American Indians.
   c. married.
   d. divorced.

5. A sudden improvement in mood after a long depression means that suicidal danger has passed.

   a. true
   b. false

POST TEST - continued

6. The five basic stages of grief and loss as defined by Dr. Kubler-Ross are:

    a. sadness, mourning, acceptance, anger, resolution
    b. denial, grief, hostility, shock, acceptance
    c. awareness, grief, anger, bargaining, fear
    d. denial, anger, bargaining, depression, acceptance

7. As a student nurse, you are busy on a general medical unit. As you walk into one of your patient's rooms to administer medications, the cardiac patient anxiously says, "I think I'm going to die tonight." Your response to this patient would be to state:

    a. "Oh you're not feeling well now, but you'll feel much better tomorrow morning."
    b. "I have your medicines here and they should make you feel better."
    c. "Why do you think that?" (realizing that people usually have a "sense" about their death)
    d. "I have a great deal of work to do before the end of the shift, but I will come back sometime to discuss this with you."

8. The best environment for a dying person is provided by:

    a. a quiet and dark room.
    b. whispering and keeping noises at a low level.
    c. avoiding social and sensory deprivation.
    d. not talking about dying when the patient initiates the conversation.

9. A person requesting legal services is probably in what stage of grief and loss?

    a. acceptance
    b. bargaining
    c. denial
    d. shock

10. The most serious problem that all personnel working with depressed patients must understand is that under the right circumstances any depressed patient could:

    a. refuse to eat.
    b. attempt suicide.
    c. attack the nurse.
    d. become very agitated.

11. Defenses usually demonstrated by the alcoholic person are:

    a. conversion
    b. sublimation
    c. denial and rationalization
    d. identification and acceptance

POST TEST - continued

12. As the nurse, you will probably see the alcoholic for what reason?

    a. to provide a sleeping place while the alcoholic is on a binge
    b. to treat medical complications of alcoholism
    c. to provide a strict and moralistic environment
    d. you will probably not see alcoholics since they usually go to alcoholic rehab centers first

13. Antabuse is a drug that must be taken by a patient who has the ability to understand its actions.

    a. true
    b. false

14. The purpose of Alateen is to:

    a. exchange experiences.
    b. learn effective ways to cope with problems.
    c. encourage one another.
    d. all are correct.
    e. none is correct.

15. In most states, the highest legal percent of alcohol in the blood that an individual can have and still operate a motor vehicle is:

    a. 0.50%
    b. 0.10%
    c. 0.05%
    d. 0.20%

For questions 16-20 and 21-25, match the specific effects of alcohol (listed on the right) with the appropriate body part affected (listed on the left) by marking the correct letter on your answer sheet.

16. gastrointestinal system
17. mouth and throat
18. esophagus
19. stomach
20. intestines

a. nausea, vomiting
b. colitis, enteritis
c. esophageal varices
d. malabsorption
e. cancer

21. liver
22. pancreas
23. neurologic system
24. cardiovascular
25. respiratory

a. blood-clotting disorders
b. diabetes
c. atrial fibrillation
d. tuberculosis
e. numbness

POST TEST - continued

26. Tuesday the doctor told Helen, a young divorced mother of two that she has terminal cancer of the cervix. As you are helping her with am care on Thursday, Helen remarks, "I've been so worried about my little girls, but I'll be well enough to go home and take care of them soon." What stage of grief does Helen seem to be in?

    a. anger
    b. acceptance
    c. denial
    d. depression

27. Don, who has recently been told that he has a fast growing cancerous tumor within his lymph system, remarks to the nurse, "It must be comforting to know that you are healthy and get to go home without a worry on your mind." Don is expressing:

    a. bargaining
    b. anger
    c. denial
    d. shock

28. The most important task in dealing with a suicidal person is to:

    a. help him/her understand that many others suffer even more.
    b. help the suicidal person understand he/she has to stop feeling self-pity.
    c. establish a rapport with that person.
    d. provide a firm and moralizing attitude.

29. All people who attempt suicide really want to die.

    a. true
    b. false

30. Anyone who would attempt suicide is mentally ill.

    a. true
    b. false

31. Most authorities believe that the chief cause of alcoholism is:

    a. handicaps
    b. heredity
    c. physical
    d. psychological

32. Alcohol is a:

    a. CNS depressant
    b. diuretic and hyperkalemic agent
    c. neutralizing agent
    d. bronchodilator

POST TEST - concluded

33. Alcoholics are to be treated:

    a. with disgust.
    b. with a kind and understanding manner.
    c. with goals directed at punishment.
    d. casually, showing little concern.

34. A drug used to assist the alcoholic during withdrawal is:

    a. compazine.
    b. thallium.
    c. linconal.
    d. thorazine.

35. Which of the following actions is not a responsibility of the nurse in meeting the needs of a dying person?

    a. maintaining the patient's physical state
    b. insuring that patient is aware he/she is dying
    c. assisting in obtaining legal and clergymen's services
    d. controlling environment

36. It is best to avoid discussing death with a dying person to prevent the person from suffering further psychological trauma.

    a. true
    b. false

37. Antabuse is a:

    a. vasodilator.
    b. vasoconstrictor.
    c. hypertensive.
    d. antiemetic.

38. The physical dependence upon a drug is:

    a. tolerance.
    b. addiction.
    c. habit.
    d. behavior.

39. Methadone is considered a narcotic by the Federal Bureau of Narcotics.

    a. true
    b. false

40. The largest number of drug abusers are on "skid row."

    a. true
    b. false

ANSWERS TO POST TEST

Modules D and E

1. b
2. c
3. d
4. c
5. b
6. d
7. c
8. c
9. a
10. b
11. c
12. b
13. a
14. d
15. b
16. d
17. e
18. c
19. a
20. b
21. a
22. b
23. e
24. c
25. d
26. c
27. b
28. c
29. b
30. b
31. d
32. a
33. b
34. d
35. b
36. b
37. a
38. b
39. a
40. b